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SHRINKAGE OF PEANUTS IN STORAGE IN THE SOUTHEAST

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Mr. H. M. Riley, Federal-State Inspection Service Supervisor for the States of Florida and Georgia, and Mr. James H. Burnette, Federal Supervisor for the State of Alabama provided inspection personnel, grading equipment and peanut samples for the study.

Federal-State Inspection personnel in Georgia, Florida, and Alabama collected, labeled and forwarded the samples to the National Peanut Research Laboratory. Other Federal-State Inspection personnel under special assignment performed the grade analyses. Without this cooperation the data for this report could not have been collected.

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SHRINKAGE OF PEANUTS IN STORAGE IN THE SOUTHEAST

By Whit O. Slay, Reed S. Hutchison, and Roy E. Heatwole[1]

SUMMARY

Storage tests were conducted to determine the changes in grade of farmers stock peanuts after 5, 30, 60, and 90 days of storage, and the relationship of the grade after these storage periods to the grade of the peanuts at first sale.

Spanish, Runner, and Virginia peanut samples were collected by the Federal-State Inspection Service from buying points in Georgia, Florida, and Alabama. Official grades were determined at the buying points; the remainder of each sample collected for the official grade was sent to the National Peanut Research Laboratory for storage. Grade factors such as percent sound mature kernels (SMK), sound splits (SS), other kernels (OK), hulls, and moisture content were determined after each storage period.

Choice of screen size as related to SMK outturn was considered.

Changes in grade were observed at the ends of all storage periods. The major cause was from transfer of moisture between the kernels and the hulls. The greatest change took place in the first 5 days. Final per-ton value of the stored peanuts was $10 to $12.23 less than the value at first sale.

INTRODUCTION

Peanuts are one of many agricultural commodities that are inspected or graded to arrive at a price fair to both the buyer and seller. The grade of peanuts is based on the percent by weight of sound mature kernels (SMK), sound splits (SS), other kernels (OK), hull content, foreign material (FM), loose shelled kernels (LSK), and damage in a representative sample from a specified quantity. These specified quantities are often graded more than once as they move through marketing channels, and grade certificates often indicate that changes have occurred in the peanuts. The changes between grades are more pronounced when the peanuts have been stored for long periods. The changes in grade are usually too large and too consistent to result from sampling error and are attributed to shrinkage of the peanuts during the storage period.

In August 1970, the Southeastern Peanut Association requested that the National Peanut Research Laboratory and the Federal-State Inspection Service collaborate on a study "to determine the change in grade of farmers stock peanuts after various storage periods and relate the grade after storage to the grade used for the first sale of the peanuts."

SAMPLING AND TEST PROCEDURE

Samples from artifically dried Spanish, Runner, and Virginia peanuts were collected by the Inspection Service from buying points in Georgia, Florida, and Alabama. As recommended by Biometrical Services of the Agricultural Research Service, 15 samples of each type of peanut were obtained from each district in the three-state area. The 15 samples of each type were collected five at a time in three different periods during the harvest season, and consisted of the unused portion of official grade samples. Official grades were determined at the buying point and a copy of the grade certificate was sent with each sample to the National Peanut Research Laboratory.

Upon arrival at the laboratory, samples were identified and logged in. Identification was by type of peanut, state, buying point, and number.

[1] Industrial engineer and agricultural engineer, respectively, Georgia-South Carolina Area, Southern Region, National Peanut Research Laboratory, Dawson, Georgia 31742; and mathematical statistician, Biometrical Services Staff, Agricultural Research Center, Beltsville, Maryland.

SP-G-DAW-1, for example, identified a Spanish peanut from Georgia with Dawson as the buying point and was the first of 15 samples from that district.

Each sample was weighed, cleaned, and divided into four parts or subsamples. Each part was weighed and placed in an 8½- by 14½-inch mesh bag with ¼-inch mesh (fig. 1). The four parts were designated B, C, D, and E, and a tag with sample identity, part identity letter, and weight was placed in each bag. The foreign material and LSK were placed in 5- by 7-inch cotton bags (fig. 2) and a tag with the sample identity and weight was attached. All parts of the sample were then placed in storage. Samples B, C, D, and E corresponded to the 5-, 30-, 60-, and 90-day storage periods, respectively. The grade information that came with the sample was used as the zero storage data. A total of more than 4,000 subsamples was graded and rescreened.

After 5 days of storage, sample B was removed from storage, weighed, shelled, and graded. The kernels were placed in a cotton bag and returned to storage. After 30 days of storage, sample C was removed from storage, weighed, shelled, graded, etc. After 60 days, sample D was graded and after 90 days, sample E was graded. The block diagram of the study (fig. 3) outlines the general procedure that was followed in storage and grading.

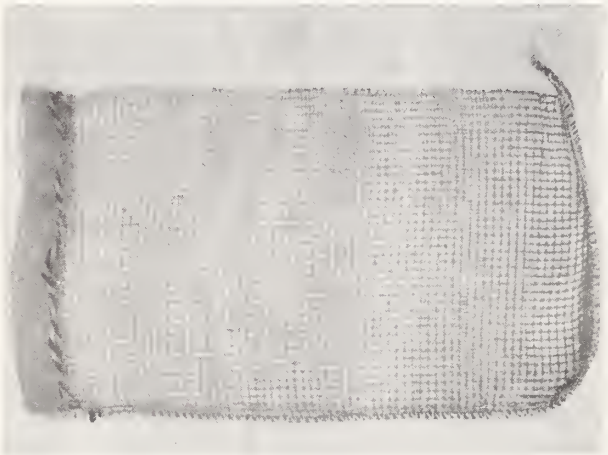

FIGURE 1.—Mesh bag used to store peanut samples.

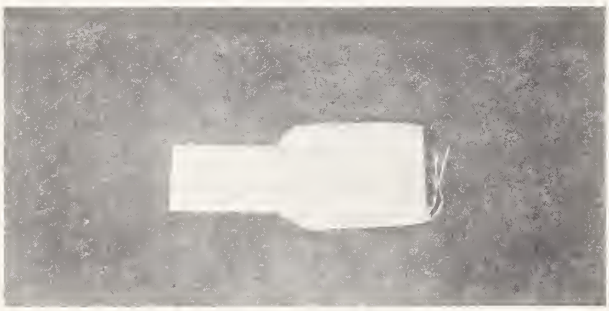

FIGURE 2.—Cotton bag used to store foreign material and loose-shelled kernels.

The storage area was an enclosed room in a metal-clad building. The storage environment was not controlled, but temperature and humidity were monitored. Ambient temperatures and humidity conditions were considered average during the storage period, including the usual dry spell during September and October. Samples were stacked on the shelves four deep to simulate actual storage conditions as closely as possible. Vapona-impregnated strips were used to control insect activity, and protection was excellent.

Standard Federal-State grading procedures were used, except that no damage was scored, the kernels were screened over four screens instead of one (table 1) and data were recorded to 0.1 gram instead of in percent.

TABLE 1.—*Screen sizes used to determine the sound mature kernel content of the peanut samples*

Peanut type	Screen size (in sixty-fourths of an inch)			
Spanish	15	14⅞	14¾	14½
Runner	16	15⅞	15¾	15½
'Florunner'	16	15⅞	15¾	15½
Virginia	21½	15	14¾	14½

A computer analysis of the data was made to show the relationship of grade factors at each predetermined storage period. The grades obtained at zero and after 90 days of storage were used to derive monetary values for each type and variety of peanuts used in the tests.

RESULTS

The results are presented by type of peanut. Moisture, total kernels, sound mature kernels (SMK), sound splits (SS), sound mature kernels and sound splits (SMK and SS), other kernels (OK), and weight of hulls are compared for the different storage periods. SMK as determined by separating over screens with different sizes of openings, and change in monetary value also

are discussed. The graphs in this section are constructed from a computer analysis of the grading information collected from all samples of each type peanut. The computor analysis showing the data on samples collected from each state is contained in the Appendix.[2]

Factors that might affect or cause change in the grade of the peanuts were considered insignificant, except for loss of dust and fine particles during shelling, and loss of moisture. Losses due to dust and fine particles being blown away during shelling, or other losses, were determined by comparing the weights of the component parts of each sample after grading to the weight of the original sample. The values were converted to percent and are shown in table 2. There was no significant loss of particulate sample matter in the grading process.

[2] In a few cases the computer printout did not include the total number of samples from which the values were calculated.

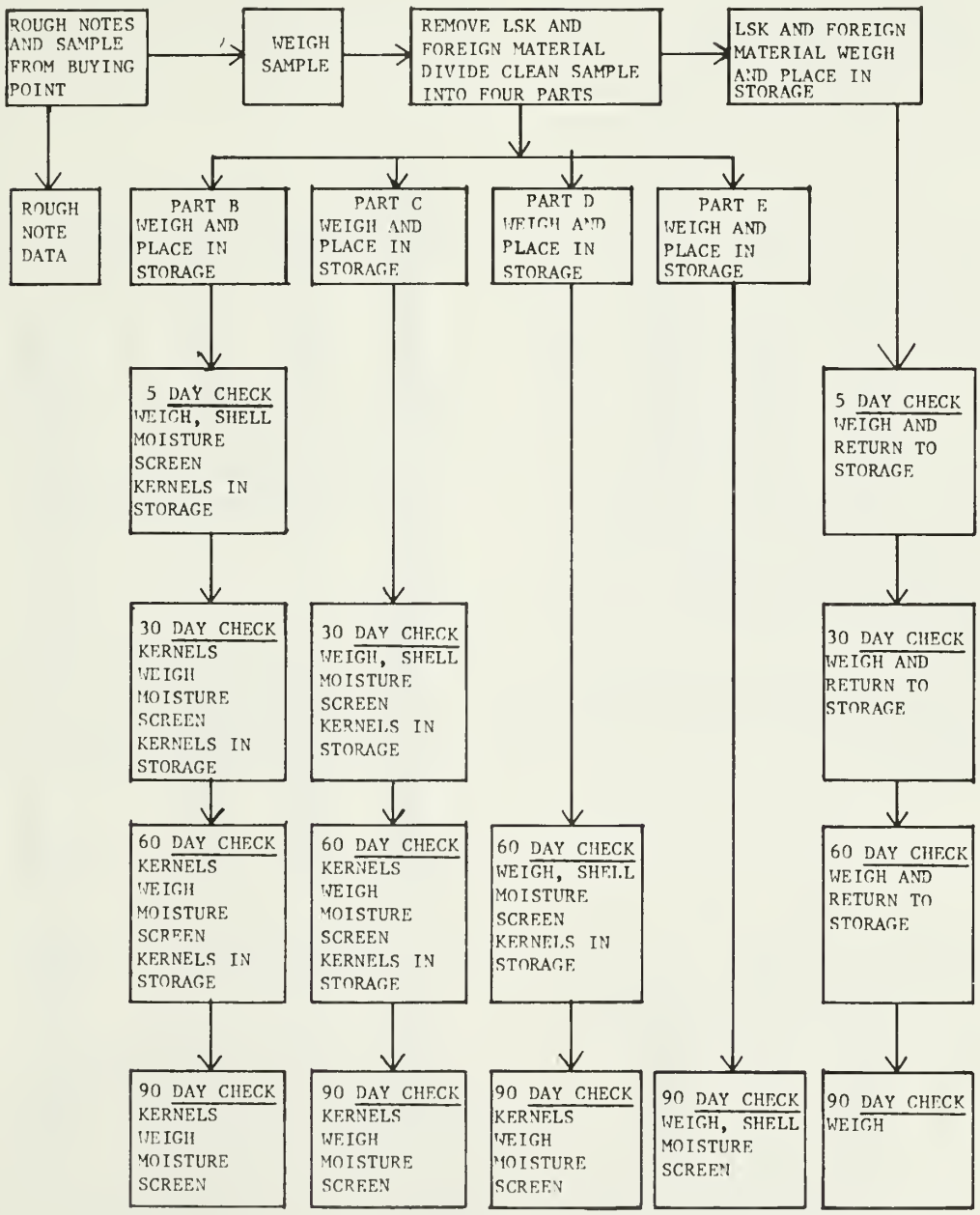
ROUGH NOTES AND SAMPLE FROM BUYING POINT
WEIGH SAMPLE
REMOVE LSK AND FOREIGN MATERIAL DIVIDE CLEAN SAMPLE INTO FOUR PARTS
LSK AND FOREIGN MATERIAL WEIGH AND PLACE IN STORAGE
ROUGH NOTE DATA
PART B WEIGH AND PLACE IN STORAGE
PART C WEIGH AND PLACE IN STORAGE
PART D WEIGH AND PLACE IN STORAGE
PART E WEIGH AND PLACE IN STORAGE
5 DAY CHECK WEIGH, SHELL MOISTURE SCREEN KERNELS IN STORAGE
5 DAY CHECK WEIGH AND RETURN TO STORAGE
30 DAY CHECK KERNELS WEIGH MOISTURE SCREEN KERNELS IN STORAGE
30 DAY CHECK WEIGH, SHELL MOISTURE SCREEN KERNELS IN STORAGE
30 DAY CHECK WEIGH AND RETURN TO STORAGE
60 DAY CHECK KERNELS WEIGH MOISTURE SCREEN KERNELS IN STORAGE
60 DAY CHECK KERNELS WEIGH MOISTURE SCREEN KERNELS IN STORAGE
60 DAY CHECK WEIGH, SHELL MOISTURE SCREEN KERNELS IN STORAGE
60 DAY CHECK WEIGH AND RETURN TO STORAGE
90 DAY CHECK KERNELS WEIGH MOISTURE SCREEN
90 DAY CHECK KERNELS WEIGH MOISTURE SCREEN
90 DAY CHECK KERNELS WEIGH MOISTURE SCREEN
90 DAY CHECK WEIGH, SHELL MOISTURE SCREEN
90 DAY CHECK WEIGH

FIGURE 3.—Block diagram of experimental procedure.

TABLE 2.—*Percent of sample weight remaining after completion of the grading process*

Peanut type	Days' storage			
	5	30	60	90
Spanish	99.3	99.1	99.6	99.3
Runner	99.7	99.3	99.4	99.4
'Florunner'	99.9	100.2	99.8	100.2
Virginia	99.5	99.9	99.5	100.0

Moisture Change

The most significant cause of changes in grade appeared to be the result of moisture loss. Moisture content of the samples at the buying point ranged from 7 to 10 percent; however, there were very few samples as low as 7 percent. Most of the samples were in the 8 to 10 percent moisture range. The average moisture content for all samples was between 8 and 9 percent. After 5 days there was a noticeable moisture loss. Evaluation of the moisture content after 5 days indicated that moisture loss from the Spanish and Virginia peanuts was slower than from the Runner and 'Florunner.' The Runner and 'Florunner' peanuts appeared to reach equilibrium earlier and subsequently tended to follow ambient conditions. There was no apparent reason for greater moisture losses in the Runner and 'Florunner' peanuts, nor for the lower moisture content at the end of 90 days of storage. The average moisture losses after 90 days of storage ranged from a low of 2.4 percent for the Spanish peanuts (fig. 4) to a high of 3.4 percent for the 'Florunner' peanuts (fig. 5). The Runner and Virginia peanuts lost 2.9 percent (fig. 6) and 2.7 percent (fig. 7), respectively.

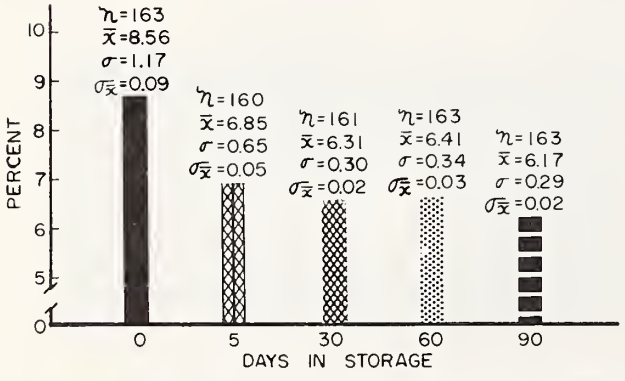

FIGURE 4.—Moisture content (wet basis) of Spanish farmers stock peanuts after storage.

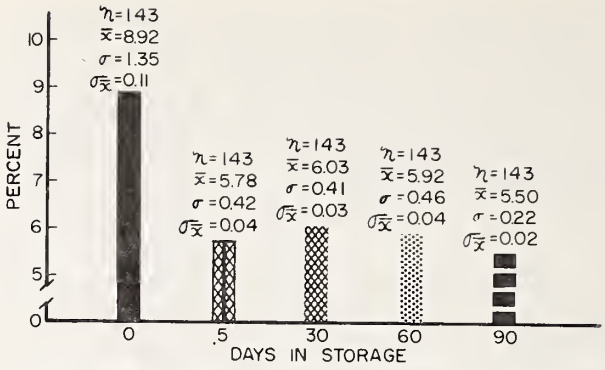

FIGURE 5.—Moisture content (wet basis) of 'Florunner' farmers stock peanuts after storage.

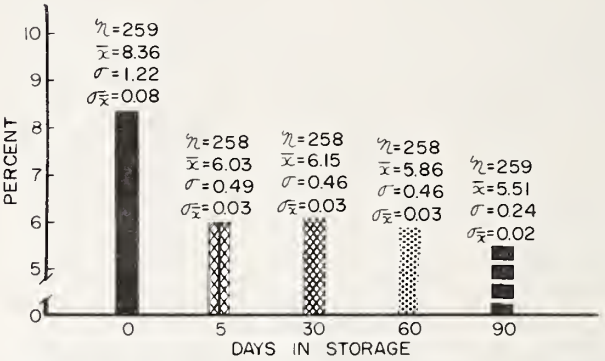

FIGURE 6.—Moisture content (wet basis) of Runner farmers stock peanuts after storage.

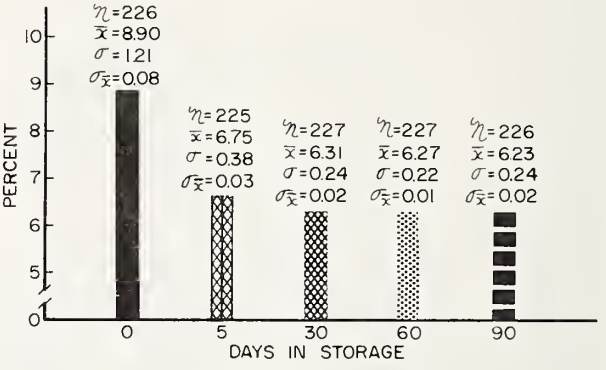

FIGURE 7.—Moisture content (wet basis) of Virginia farmers stock peanuts after storage.

Total Kernel Change

The percentage of kernel outturn varied by type of peanut. The greatest outturn for all types was at zero days storage. A sharp decrease occurred during the first 5 days of storage. The total kernel content of the samples increased gradually after 5 days of storage in all except the

Virginia peanuts. They showed their lowest total kernel content after 30 days of storage, then gradually increased. An inverse relationship between kernel and hull moisture content was evident for all the peanuts at the time of each analysis. This inverse relationship apparently resulted from transfer of moisture between the kernels and hulls. However, the moisture gained by the hulls was not equal to that lost by the kernels, which indicated some moisture loss to the surrounding air.

After 90 days of storage, the total kernel outturn had decreased 1.4 percent in the Spanish peanuts (fig. 8) and 1.5 percent in the Runner peanuts (fig. 9). The Florunner and Virginia peanuts had decreased 0.6 percent (fig. 10) and 2.3 percent (fig. 11), respectively.

Sound Mature Kernel Change

The change in percent of SMK between zero and 90 days of storage was fairly large for all types of peanuts. Most of the change occurred during the first 5 days of storage, except in Virginia peanuts, which had the largest change between the fifth and thirtieth days of storage. A comparison of the change in SMK with changes in SS and hulls shows an inverse relationship which accounted for most of the difference. The change in SMK in the peanuts from 0 to 5 days storage is offset more by changes in hulls than in SS. However, from 5 through 90 days of storage most of the decrease in SMK of the peanuts was the result of an increase in SS.

After 90 days of storage, the largest SMK decrease, 6.7 percent, occurred in the Spanish peanuts (fig. 12) and the smallest decrease, 4.1 percent, in the Virginia peanuts (fig. 13). The SMK decrease in the Runner and Florunner peanuts was 6.0 percent (fig. 14) and 5.3 percent (fig. 15), respectively.

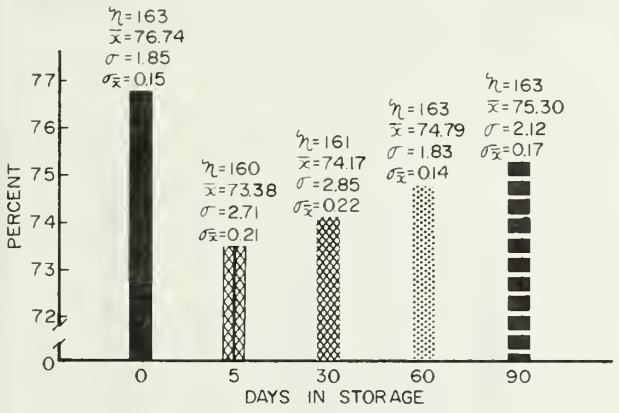

FIGURE 8.—Total kernel outturn of Spanish farmers stock peanuts after storage.

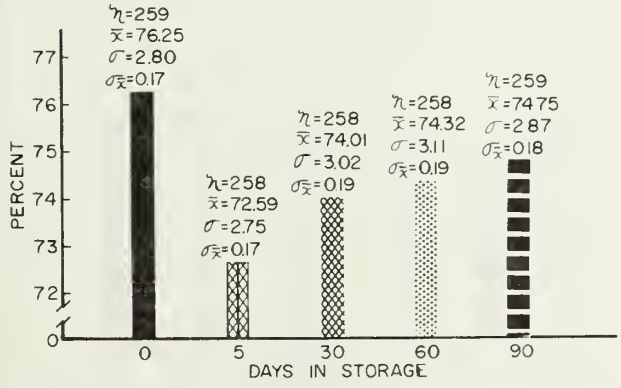

FIGURE 9.—Total kernel outturn of Runner farmers stock peanuts after storage.

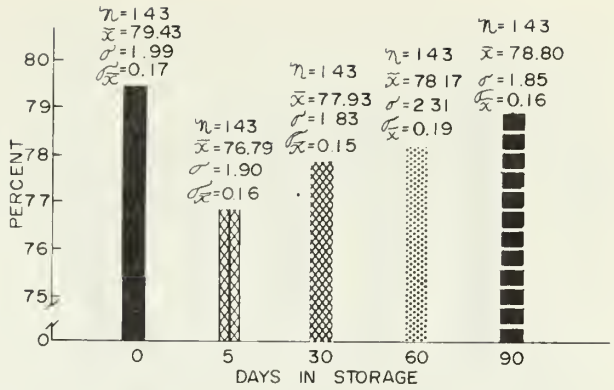

FIGURE 10.—Total kernel outturn of 'Florunner' farmers stock peanuts after storage.

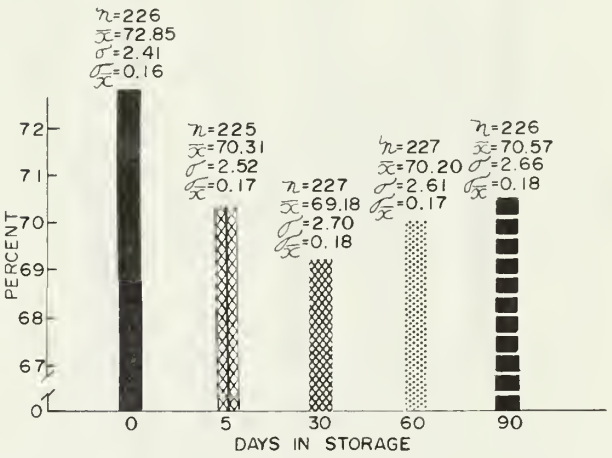

FIGURE 11.—Total kernel outturn of Virginia farmers stock peanuts after storage.

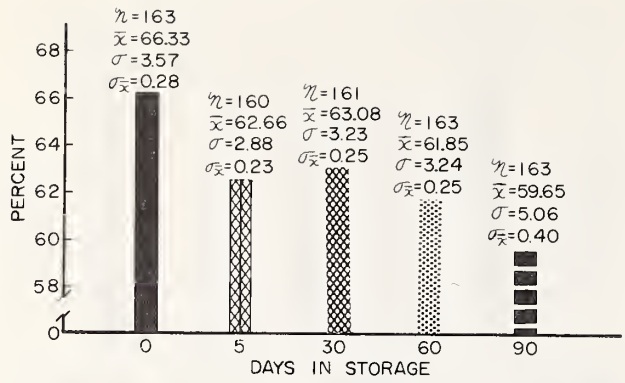

FIGURE 12.—Sound mature kernels of Spanish farmers stock peanuts after storage.

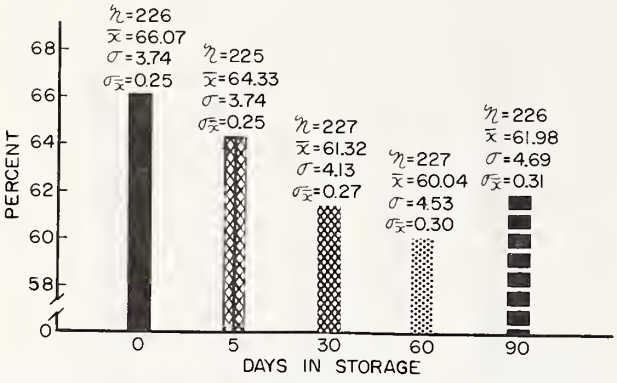

FIGURE 13.—Sound mature kernels of Virginia farmers stock peanuts after storage.

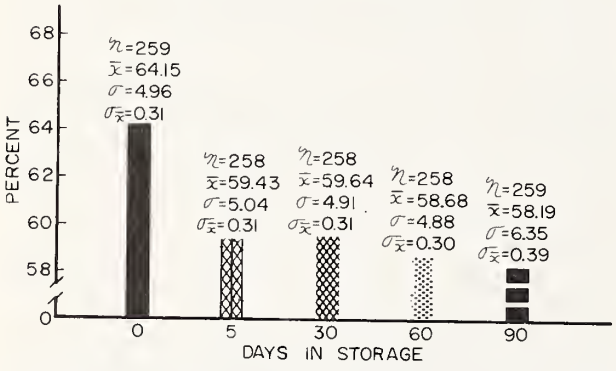

FIGURE 14.—Sound mature kernels of Runner farmers stock peanuts after storage.

Sound Splits Change

The split kernel content of the samples increased as the length of the storage period increased, primarily because of greater damage during shelling of the peanuts at moistures below 7 percent. There was no indication of a straight-line relationship between moisture decrease and split kernel increase. However, the increase in SS coincided with a decrease in SMK, although not in the same proportion. After 90 days of storage, SS increased 6.2, 4.7, 4.9, and 3.0 percent, respectively, for the Spanish (fig. 16), Runner (fig. 17), 'Florunner' (fig. 18) and Virginia peanuts (fig. 19).

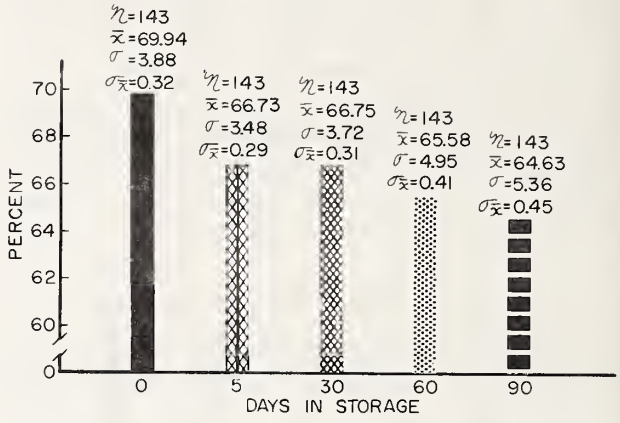

FIGURE 15.—Sound mature kernels of 'Florunner' farmers stock peanuts after storage.

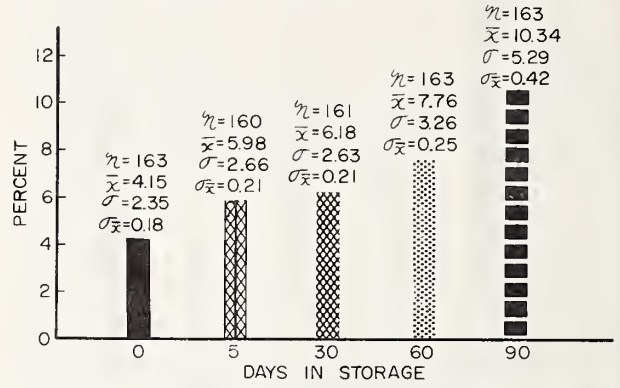

FIGURE 16.—Split kernel outturn of Spanish farmers stock peanuts after storage.

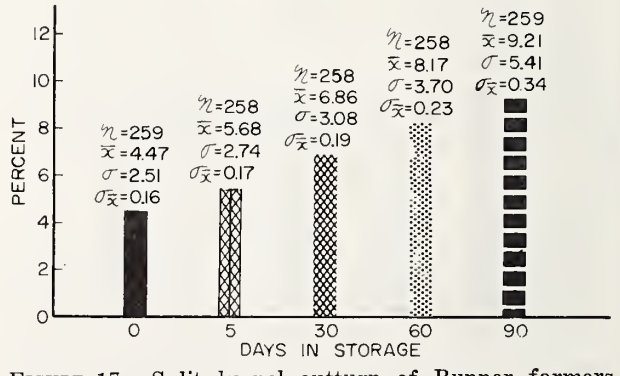

FIGURE 17.—Split kernel outturn of Runner farmers stock peanuts after storage.

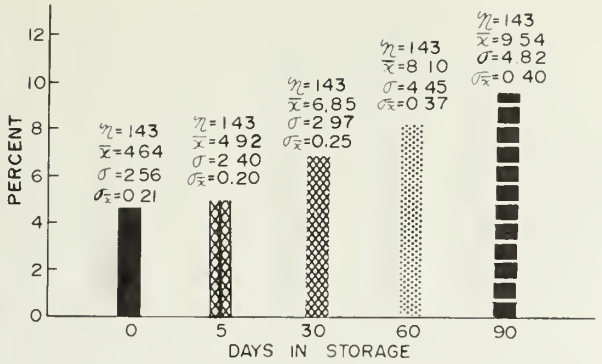

FIGURE 18.—Split kernel outturn of 'Florunner' farmers stock peanuts after storage.

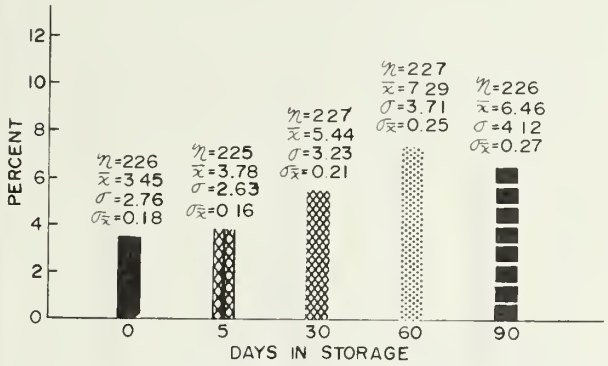

FIGURE 19.—Split kernel outturn of Virginia farmers stock peanuts after storage.

Sound Mature Kernel Plus Sound Splits Change

Combining SMK and SS presents a better perspective of the change that occurred in total outturn in these two categories. The dollar value of peanuts is primarily determined by SMK and SS, and while the decrease from zero storage (the buying-point grade) is obvious, it is not extremely large. However, this does not include weight losses or other losses from insects, spillage, etc. that might occur in commercial storage. The smallest changes through 90 days of storage were decreases of 0.5 percentage point for the Spanish peanuts (fig. 20) and 0.4 percentage point for the Florunner peanuts (fig. 21). The greatest change was a 1.2 percent decrease in the Runner peanuts (fig. 22). The Virginia peanuts decreased slightly over 1.0 percent (fig. 23).

Other Kernel Change

Changes in OK content of the samples were small throughout the storage period (figs. 24, 25, 26, and 27). Undoubtedly, there was a loss of SMK to OK, but it was not as large as was expected. The most significant aspect is the distribution pattern of percent OK in the samples. The Runner peanuts had the highest percentage of OK and the least increase in OK throughout the storage period. Howeyer, none of the peanuts changed more than 0.5 percentage point in OK

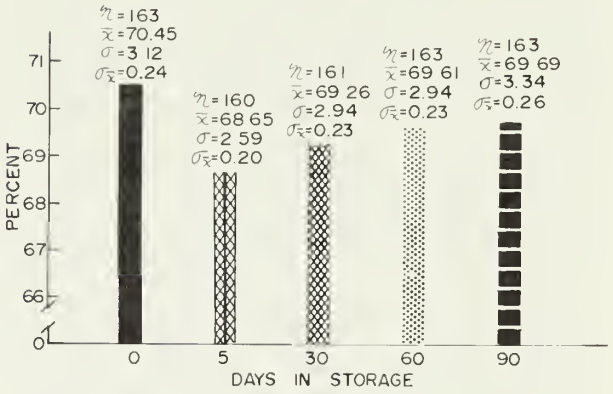

FIGURE 20.—Sound mature kernels plus sound splits of Spanish farmers stock peanuts after storage.

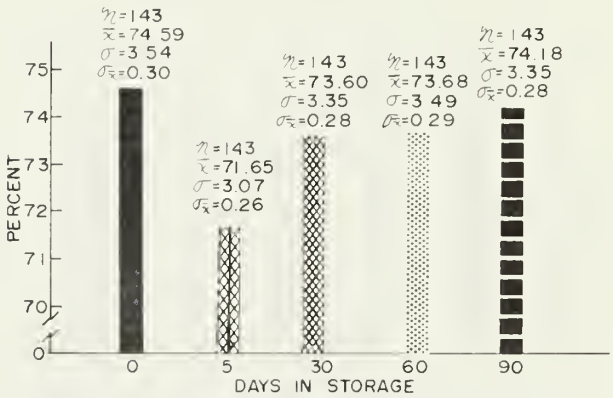

FIGURE 21.—Sound mature kernels plus sound splits of 'Florunner' farmers stock peanuts after storage.

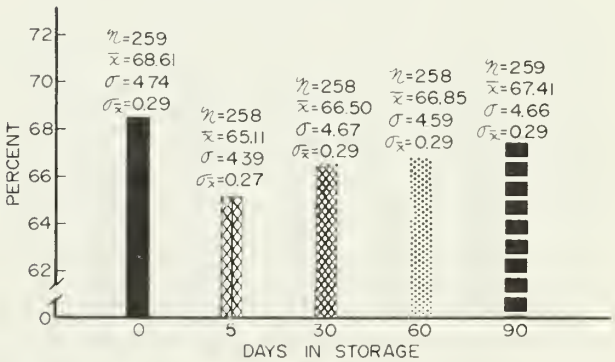

FIGURE 22.—Sound mature kernels plus sound splits of Runner farmers stock peanuts after storage.

during 90 days of storage. The splitting of OK may have partially offset gains in OK from shrinkage of SMK. Maturity of the peanuts must also be considered. Although there is no clear-cut dividing line between mature and immature kernels, both the percentage of SMK and total kernels indicated that all the peanuts were probably better than average in maturity. Since immature peanuts are higher in moisture and shrink more than mature peanuts, the indication is that even the smaller peanuts were generally mature and did not shrink enough to cause any great change in OK content. The OK fraction normally contains the most immature kernels and the greater moisture loss from these kernels probably offset some of the weight of any additional kernels that shrank enough to fall through the standard screen at later grading periods. Whether for one or all of these reasons, the Spanish, Runner, and Virginia peanuts showed slight decreases in percent OK, while the 'Florunner' peanuts showed a slight increase in percent OK.

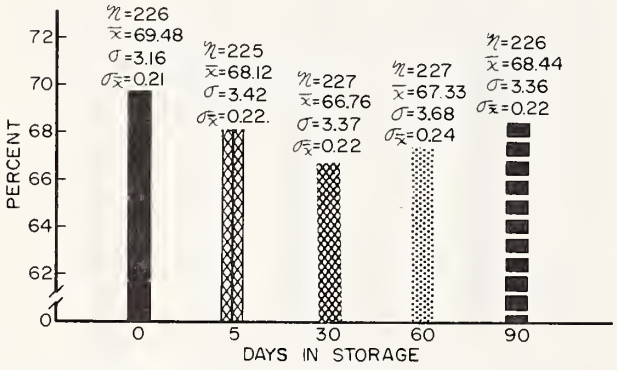

FIGURE 23.—Sound mature kernels plus sound splits of Virginia farmers stock peanuts after storage.

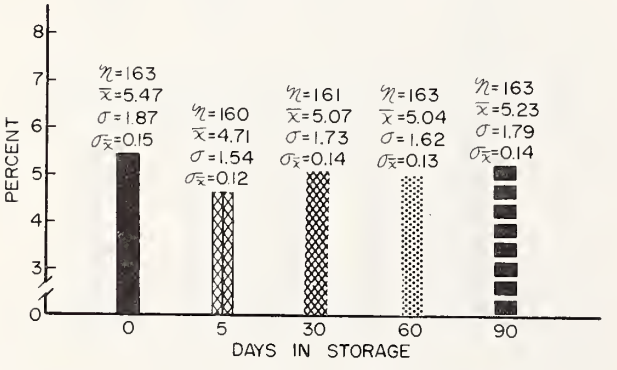

FIGURE 24.—Other kernels of Spanish farmers stock peanuts after storage.

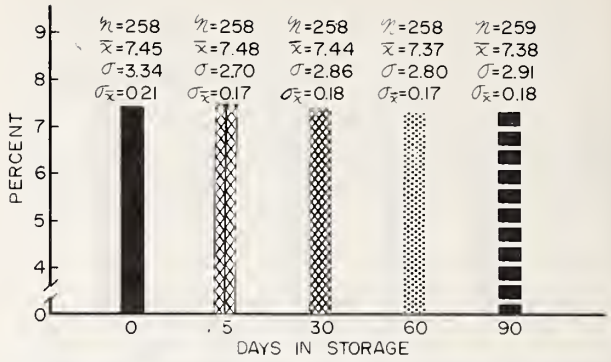

FIGURE 25.—Other kernels of Runner farmers stock peanuts after storage.

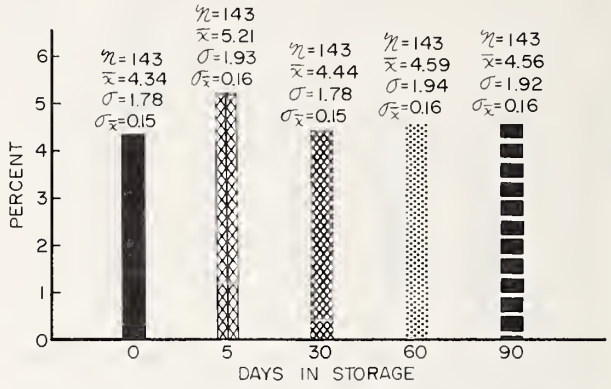

FIGURE 26.—Other kernels of 'Florunner' farmers stock peanuts after storage.

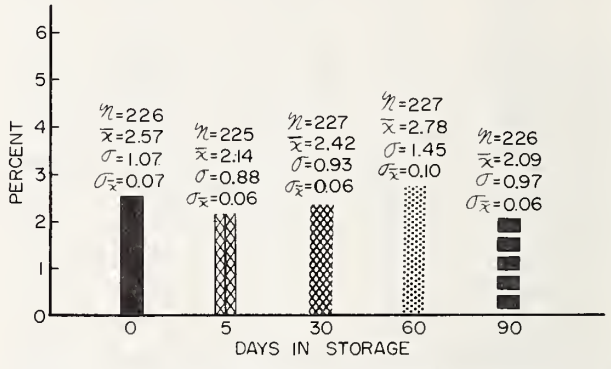

FIGURE 27.—Other kernels of Virginia farmers stock peanuts after storage.

Hull Change

The weight of hulls in all samples was much higher after 5 days of storage than at zero storage. The increase in percent of hulls was due to moisture absorbed by the hulls from the kernels. Pickup of moisture by the hulls from the kernels is not unusual, since the hulls are often overdried

in the artificial drying operation. After the kernels and hulls reached equilibrium, the hulls showed a slight decrease in moisture throughout storage as hull moisture followed atmospheric conditons. However, the percent of hulls was higher during the remainder of the storage period than before the samples were placed in storage. After 90 days of storage, the Spanish peanuts showed 1.3 percent more hulls (fig. 28) than at zero storage. The Runner peanuts had a 1.5 percent higher hull content (fig. 29) and the 'Florunner' peanuts a 0.98 percent higher hull content (fig. 30). The Virginia peanuts showed the highest hull content increase — 2.2 percent (fig. 31). The moisture-holding capacity of the Virginia peanuts was probably due to the thicker hull. The thin hull on the 'Florunner' peanut had the least moisture-holding capacity and, thus, the lowest increase in hull content after 90 days of storage.

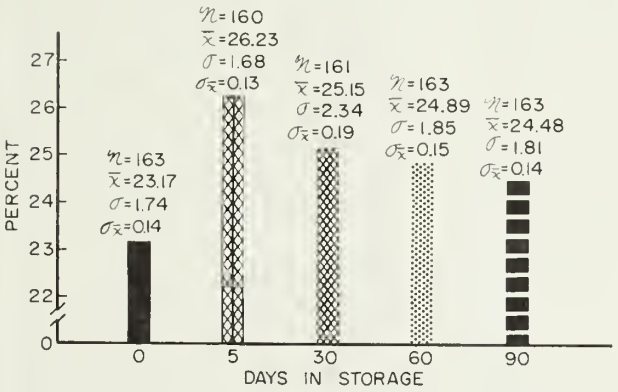

FIGURE 28.—Hull content of Spanish farmers stock peanuts after storage.

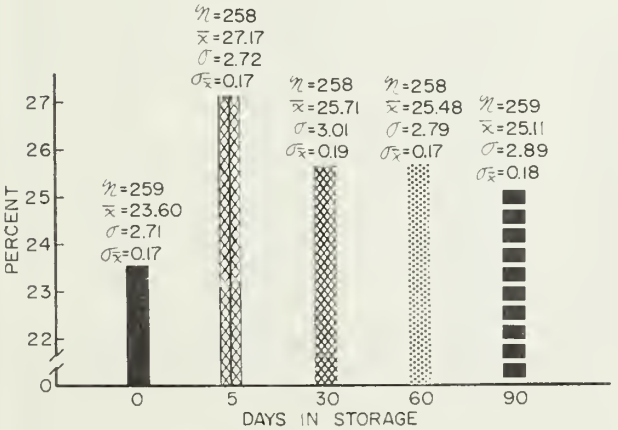

FIGURE 29.—Hull content of Runner farmers stock peanuts after storage.

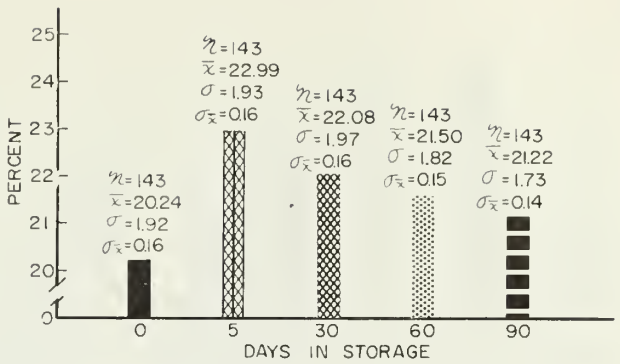

FIGURE 30.—Hull content of 'Florunner' farmers stock peanuts after storage.

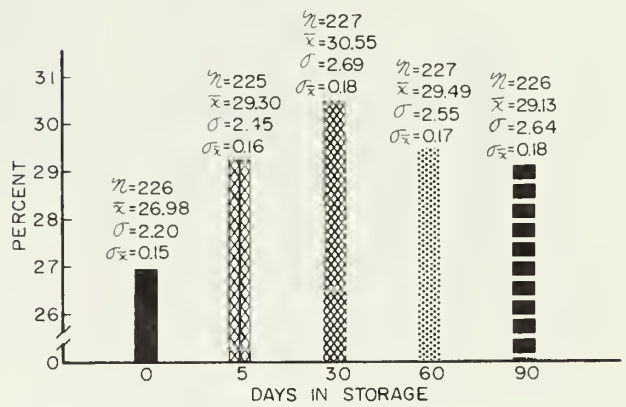

FIGURE 31.—Hull content of Virginia farmers stock peanuts after storage.

Weight Change

Peanuts in storage lose weight for several reasons, but kernel moisture loss is probably the most important, because it affects both grade and total weight. A loss of kernel moisture usually results in lowering both grade and total pounds of peanuts. A loss in SMK is particularly important because it is the primary component upon which the peanuts are priced.

Kernel weight reduction due to moisture loss ranged from a low of 2.5 percent for the Spanish peanuts (fig. 32) to a high of 3.6 percent for the Florunner peanuts (fig. 33) during the 90-day storage period. The Virginia and Runner peanuts lost 2.8 (fig. 34) and 3.2 (fig. 35) percent of their kernel weight, respectively. Most of the kernel weight loss in the peanut samples occurred during the first 5 days of storage. For the remainder of the storage period moisture migration from the kernels was very slow due to near equilibrium of the peanuts with ambient conditions.

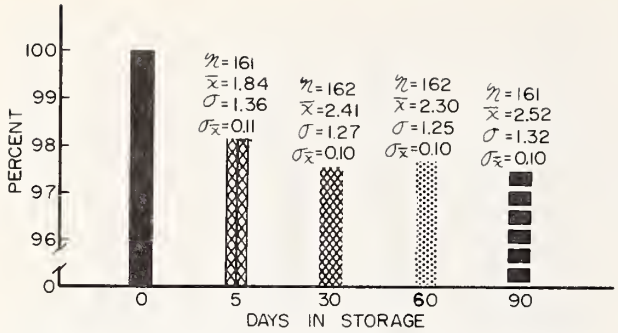

FIGURE 32.—Percent of original weight of Spanish farmers stock peanuts remaining after storage.

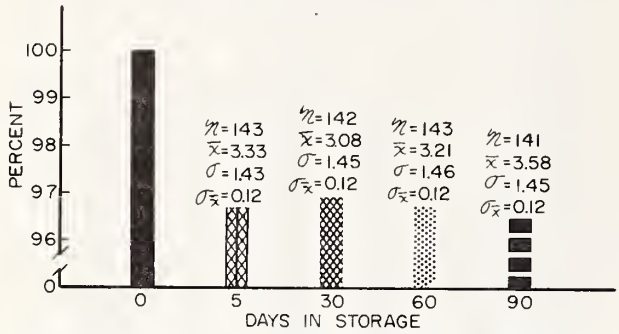

FIGURE 33.—Percent of original weight of 'Florunner' farmers stock peanuts remaining after storage.

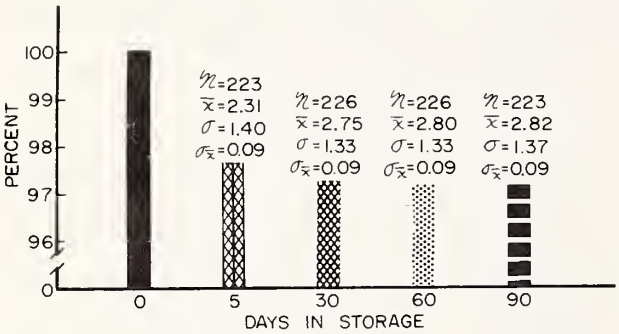

FIGURE 34.—Percent of original weight of Virginia farmers stock peanuts remaining after storage.

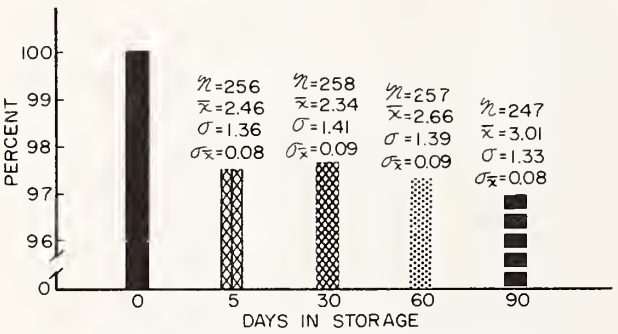

FIGURE 35—Percent of original weight of Runner farmers stock peanuts remaining after storage.

Screen Sizes and Sound Mature Kernel Outturn

The data on percent SMK and SS outturn for the peanuts show that the outturn with the standard screens was higher at zero days of storage than at the end of any of the other storage periods. The 'Florunner' peanuts came closest of all the types tested to having the same percent SMK and SS outturn after 90 days of storage as they did at zero storage. Size distribution of the kernels combined with smaller moisture-absorbing capacity of the thin 'Florunner' hulls probably accounted for 'Florunner's' uniform outturn before and after 90 days of storage.

The screen size needed to obtain the same percent SMK and SS outturn after storage as before storage varied with the type of peanuts and with the weight interchange between the components of the sample during the various storage periods. After Spanish peanuts were stored for 90 days, a 14-7/8/sixty-fourths-inch screen (fig. 36)[3] separated slightly more SMK and SS than a 15/sixty-fourths-inch screen did at zero days of storage, but it showed almost the same outturn after the 30- and 60-day interim storage periods. However, the precise screen size needed at any particular storage period is a difficult choice and a slightly larger screen size than the 14 7/8/sixty-fourths-inch may be needed.

The 15-7/8/sixty-fourths-inch screen was best for separating sound mature and other kernels for Runner (fig. 37) and 'Florunner' (fig. 38) peanuts after 90 days of storage. The same screen is also a fairly good choice for 'Florunner' peanuts after 30- and 60-day storage periods. However, the moisture migration between the components of the sample causes somewhat more change in Runner peanuts and a suitable screen to meet all storage period conditions for Runner and 'Florunner' peanuts becomes a matter of compromise. A slightly smaller screen than the 15-7/8/sixty-fourths-inch would come closest to giving the same percent SMK plus SS outturn after all storage periods as there was at zero storage for both the Runner and 'Florunner' peanuts.

The screen sizes used for the Virginia peanuts (fig. 39) were not small enough to give sufficient SMK plus SS outturn to match the zero storage

[3] Parameters for figs. 36–39 are contained in tables 7–10 in the appendix.

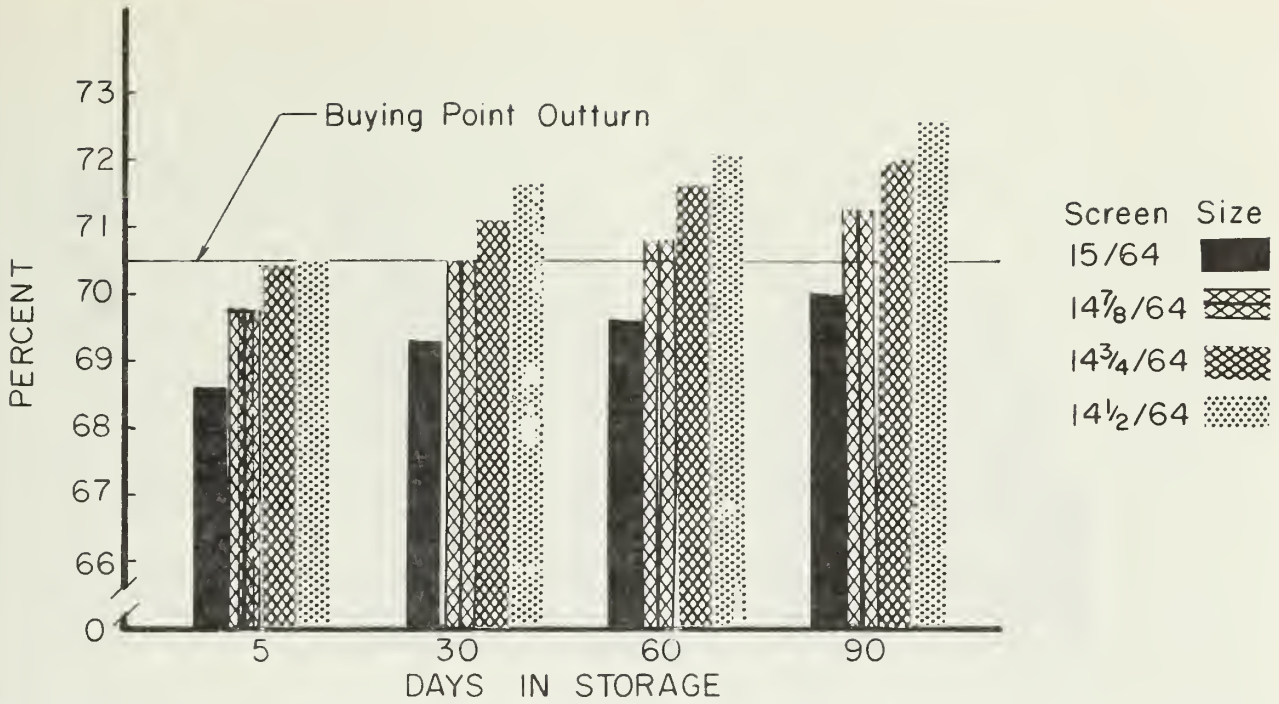

FIGURE 36.—Sound mature kernel and sound splits outturn over indicated screen size after storage of Spanish farmers stock peanuts.

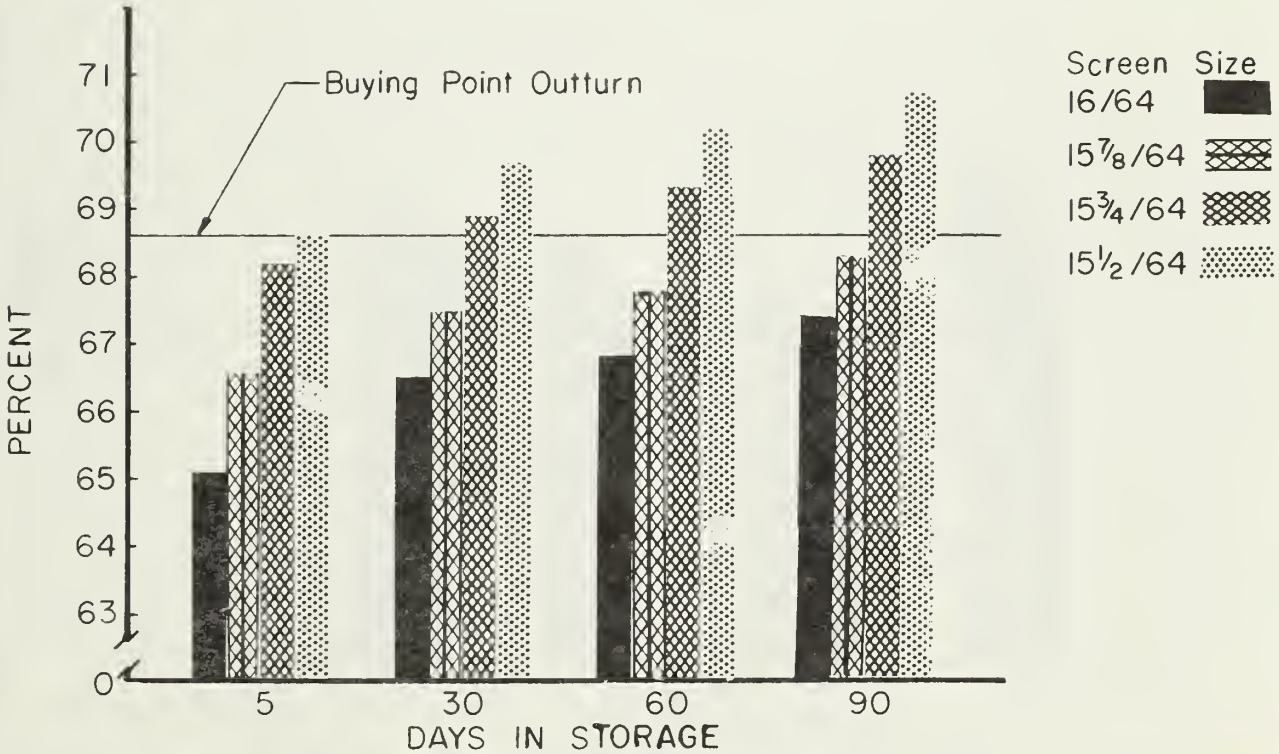

FIGURE 37.—Sound mature kernel and sound splits outturn over indicated screen size after storage of Runner farmers stock peanuts.

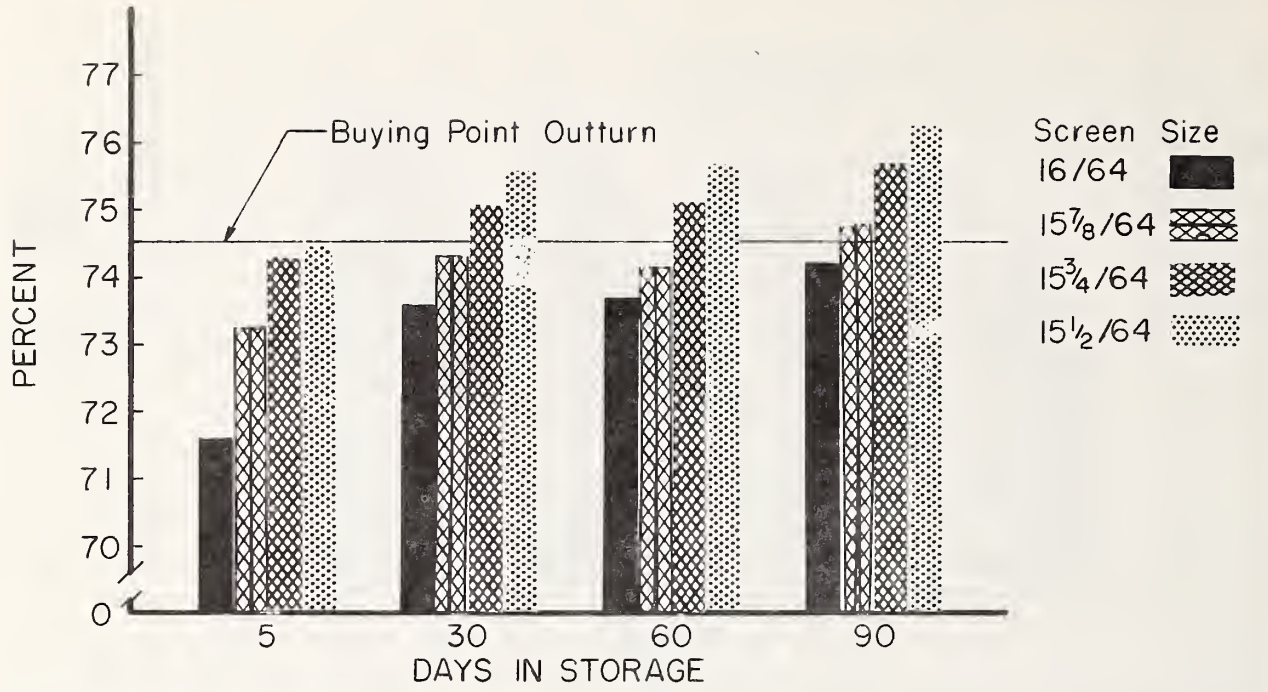

FIGURE 38.—Sound mature kernel and sound splits outturn over indicated screen size after storage of 'Florunner' farmers stock peanuts.

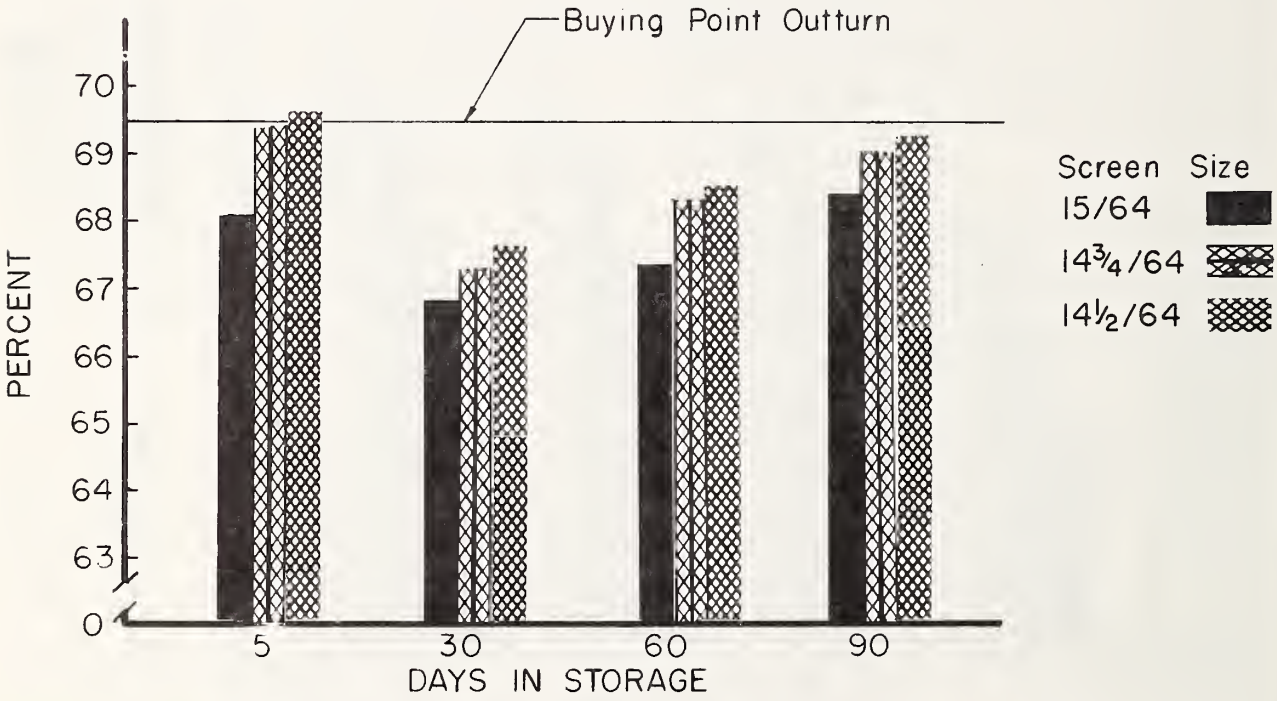

FIGURE 39.—Sound mature kernel and sound splits outturn over indicated screen size after storage of Virginia farmers stock peanuts.

outturn except after the 5-day storage period. The data on hull content showed that the moisture migration from the Virginia peanut kernels to the hulls was not as advanced after 5 days of storage as it was in the other types at this time, which may account for the different trend of the grade factors for the Virginia peanuts after 5 days of storage. The Virginia peanuts reached their low point in percent SMK plus SS outturn between the fifth and thirtieth days of storage. After this, the hull moisture decreased as it did in the other types, and the ratio between hull and kernel weight tended to equalize as dictated by equilibrium conditions. A storage period longer than 90 days may have caused further decrease in hull weight which would have been reflected in a slight increase in percent SMK plus SS. However, a slightly smaller screen than the 14-1/2/sixty-fourths-inch is necessary to match the after-storage outturn to the zero-storage outturn.

If it is desired that weight of SMK and SS after storage be equal to the weight before storage, a screen size smaller than that needed to provide the same percentage outturn is required. For example, a ton of Runner peanuts graded at a kernel moisture content slightly in excess of 8 percent had 68.8 percent or 1,356.7 pounds of SMK and SS. After 90 days of storage the peanuts had 67.4 percent or 1,310.9 pounds of SMK and SS. The drop in SMK and SS is only 1.4 percentage points and a screen with holes one-eighth of a sixty-fourth inch smaller than the standard grading screen (16/64-inch holes) would about make up the loss in percentage points. However, to provide the same weight of SMK and SS after storage as before storage a screen with holes one-fourth of a sixty-fourth inch smaller than the standard grading screen would be needed to grade after storage. The result is that after storage, a higher percent SMK plus SS outturn than that obtained at zero days of storage is required to make up the difference in weight loss. Any make-up of weight loss must be done by using a screen small enough to reduce OK content by the required number of pounds. The effect of this approach on quality factors such as taste, etc. probably requires investigation.

Value of Peanuts Before and After Storage

The value of a lot of peanuts depends upon the grade of a representative sample of peanuts from the lot. If a subsequent grade analysis shows that the components of the sample used to determine the grade have changed, the value of the peanuts has changed. The data from the tests described above indicate that the components of the peanut sample do change and the values obtained at zero and 90 days of storage may be significantly different. The grade factors and change in weight have been applied to a ton of peanuts to show the difference in value of peanuts before storage and after 90 days of storage. The ton of peanuts was assumed to be free of foreign material and LSK and without disqualifying damage. The values shown exclude losses due to insects, handling shrinkage or damage, etc. The calculations are based on values to the nearest one-tenth percent as obtained in the study, rather than to the nearest percent as is common to the trade. This method reflected small differences in dollar value per ton of the peanuts, but the values are substantially correct. The decrease in value per ton after 90 days of storage ranged from $10 for the 'Florunner peanuts' (table 3) to $12.23 for the Runner peanuts (table 4). The Spanish and Virginia peanuts decreased $10.03 (table 5) and $11.01 (table 6), respectively.

DISCUSSION

The analysis made on the peanut samples throughout the storage period indicated a state of continuous change in the components on which grade is based. The amount and rapidity of the change during storage depended on the moisture content of the peanuts and the temperature and relative humidity of the storage environment. The largest changes in grade were changes in moisture content, SMK, SS and hulls. Moisture change was the primary factor that affected SMK, SS, OK and hulls. Much of the moisture lost by the kernels was absorbed by the hulls, and there was only moderate loss from the sample as a whole. The net result was that the percentage SMK content of the sample decreased, thus reducing the unit value of the peanuts. As the peanuts approached equilibrium moisture conditions, the hulls lost moisture and the ratio of the components to the total sample again changed accordingly. In addition, as the kernels dried, more splitting occurred and reduced the SMK content. The interplay between the components of grade and the weight loss of the pea-

nuts from moisture reduction accounted for most of the observed changes.

Although commercial storage conditions were simulated as closely as possible, moisture loss in the samples for the 90-day storage period may have been slightly more than it would have been during the same interval in a commercial storage pile. Total change in grade may also have been slightly greater. However, during longer storage periods, commercially stored peanuts often reach the moisture levels of the samples in this study, and if they do, the changes in grade should be comparable.

TABLE 3.—*Value per ton of 'Florunner' farmers stock peanuts before and after storage*

Grade category[3]	0 storage[1]				90 days' storage[2]			
	Percent of net weight	Weight, lb.	Value per pound[4]	Total value	Percent of net weight	Weight, lb.	Value per pound[4]	Total value
SMK	70.1	1,375.4	$0.1800	$247.57	64.7	1,250.0	$0.1800	$225.00
SS	4.8	94.2	.1800	16.95	9.5	183.5	.1800	33.04
OK	4.6	90.3	.0700	6.32	4.6	88.9	.0700	6.22
Hulls	20.5	402.1			21.2	409.6		
Total	100.00	1,962.0		270.84	100.0	1,932.0		264.26
Discounts (split kernels)				—.83				—4.25
Total net				270.01				260.01

[1] Gross wt, 2,000 lb; excess moisture corrected to 7% wb, 38 lb; net wt, 1,962 lb; % moisture, 8.9.
[2] Gross wt, 1,932 lb; excess moisture, 0; net wt, 1,932 lb; % moisture, 5.5.
[3] No damage, LSK, or FM included.
[4] Value taken from 1971 price support issued 5–27–71.

TABLE 4.—*Value per ton of Runner farmers stock peanuts before and after storage*

Grade category[3]	0 storage[1]				90 days' storage[2]			
	Percent of net weight	Weight, lb.	Value per pound[4]	Total value	Percent of net weight	Weight, lb.	Value per pound[4]	Total value
SMK	64.3	1,268.0	$0.1800	$228.24	58.3	1,132.2	$0.1800	$203.79
SS	4.5	88.7	.1800	15.97	9.2	178.7	.1800	32.16
OK	7.6	149.9	.0700	10.49	7.4	143.7	.0700	10.06
Hulls	23.6	465.4			25.1	487.4		
Total	100.0	1,972.0		254.70	100.0	1,942.0		246.01
Discounts (split kernels)				—.50				—4.04
Total net				254.20				241.97

[1] Gross wt, 2,000 lb; excess moisture corrected to 7% wb, 38 lb; net wt, 1,962 lb; % moisture, 8.9.
[2] Gross wt, 1,942 lb; excess moisture, 0; net wt, 1,942 lb; % moisture, 5.5.
[3] No damage, LSK, or FM included.
[4] Value taken from 1971 price support issued 5–27–71.

TABLE 5.—*Value per ton of Spanish farmers stock peanuts before and after storage*

Grade category[3]	0 storage[1]				90 days' storage[2]			
	Percent of net weight	Weight, lb.	Value per pound[4]	Total value	Percent of net weight	Weight, lb.	Value per pound[4]	Total value
SMK	66.5	1,308.7	$0.18205	$238.25	59.8	1;167.3	$0.18205	$212.51
SS	4.4	86.6	.18205	15.77	10.3	201.1	.18205	36.60
OK	5.7	112.2	.07000	7.85	5.3	103.4	.07000	7.24
Hulls	23.4	460.5			24.6	480.2		
Total	100.0	1,968.0		261.87	100.0	1,952.0		256.35
Discounts (split kernels)				—.39				—4.92
Total net				261.46				251.43

[1] Gross wt, 2,000 lb; excess moisture corrected to 7% wb, 32 lb; net wt, 1,968 lb; % moisture, 8.6.
[2] Gross wt, 1,952 lb; excess moisture, 0; net wt, 1,952 lb; % moisture, 6.2.
[3] No damage, LSK, or FM included.
[4] Value taken from 1971 price supports, issued 5–27–71.

TABLE 6.—*Value per ton of Virginia farmers stock peanuts before and after storage*

Grade category[3]	0 storage[1]				90 days' storage[2]			
	Percent of net weight	Weight, lb.	Value per pound[4]	Total value	Percent of net weight	Weight, lb.	Value per pound[4]	Total value
SMK	66.3	1,300.8	$0.1836	$238.83	62.0	1,206.5	$0.1836	$221.51
SS	3.7	72.6	.1836	13.33	6.6	128.4	.1836	23.57
OK	2.8	54.9	.0700	3.84	2.2	42.8	.0700	3.00
Hulls	27.2	533.7			29.2	568.3		
Total	100.0	1,962.0		256.00	100.0	1,946.0		248.08
Premium (Elk)	31.2	612.1	.0225	13.77	29.0	564.3	.0225	12.70
Total gross				269.77				260.78
Discounts (split kernels)								—2.02
Total net				269.77				258.76

[1] Gross wt, 2,000 lb; excess moisture corrected to 7% wb, 38 lb; net wt, 1,962 lb; % moisture, 8.9.
[2] Gross wt, 1,946 lb; excess moisture, 0; net wt, 1,946 lb; % moisture, 6.2.
[3] No damage, LSK, or FM included.
[4] Value taken from 1971 price supports, issued 5–27–71.

APPENDIX

The following tables contain the data collected and the statistical analyses made during the study of peanut shrinkage in storage, grouped by peanut type (tables 7-10) and by State (Alabama, tables 11-22; Florida, tables 23-34; and Georgia, tables 35–46). Screen sizes in all tables are given in sixty-fourths of an inch; for example, 15=15/64.

TABLE 7.—*Sound mature kernel (SMK) and sound split (SS) outturn of Spanish peanut samples using different screen sizes*

Days in storage	Sample size (n)	Screen size	Mean % SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	163	15	70.45	3.12	0.24	69.98–70.93
5	160	15	68.65	2.59	.20	68.25–69.05
5	33	14 7/8	69.71	2.10	.37	68.97–70.46
5	33	14 3/4	70.38	1.91	.33	69.70–71.06
5	160	14 1/2	70.46	2.34	.19	70.10–70.82
30	160	15	69.27	2.95	.23	68.82–69.73
30	160	14 7/8	70.48	2.78	.22	70.05–70.91
30	160	14 3/4	71.07	2.66	.21	70.66–71.48
30	160	14 1/2	71.58	2.57	.20	71.18–71.98
60	163	15	69.61	2.94	.23	69.16–70.07
60	163	14 7/8	70.83	2.74	.21	70.40–71.25
60	163	14 3/4	71.55	2.62	.21	71.15–71.95
60	163	14 1/2	72.05	2.54	.20	71.66–72.44
90	163	15	69.99	3.34	.26	69.47–70.50
90	163	14 7/8	71.34	3.16	.25	70.85–71.82
90	163	14 3/4	72.04	3.03	.24	71.57–72.50
90	163	14 1/2	72.57	2.95	.23	72.11–73.02

TABLE 8.—*SMK and SS outturn of Runner peanut samples, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Mean % SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	259	16	68.61	4.74	0.29	68.04–69.19
5	258	16	65.11	4.39	.27	64.58–65.65
5	128	15 7/8	66.65	4.35	.38	65.89–67.40
5	128	15 3/4	68.17	4.02	.36	67.47–68.87
5	258	15 1/2	68.60	3.85	.24	68.13–69.07
30	258	16	66.50	4.67	.29	65.93–67.07
30	258	15 7/8	67.51	4.48	.28	66.97–68.06
30	258	15 3/4	68.90	4.00	.26	68.39–69.41
30	258	15 1/2	69.69	4.08	.25	69.19–70.19
60	258	16	66.85	4.58	.29	66.29–67.41
60	258	15 7/8	67.81	4.38	.27	67.28–68.35
60	258	15 3/4	69.32	4.05	.25	68.83–69.81
60	258	15 1/2	70.22	3.83	.24	69.76–70.69
90	259	16	67.41	4.66	.29	66.84–67.97
90	259	15 7/8	68.28	4.57	.28	67.73–68.84
90	259	15 3/4	69.81	4.23	.26	69.30–70.33
90	259	15 1/2	70.77	3.98	.25	70.29–71.26

TABLE 9.—*SMK and SS outturn of 'Florunner' peanut samples, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Mean % SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	143	16	74.59	3.54	0.30	74.00–75.17
5	143	16	71.65	3.07	.26	71.15–72.15
5	87	15⅞	73.30	2.84	.30	72.69–73.90
5	87	15¾	74.26	2.61	.28	73.70–74.81
5	143	15½	74.48	2.50	.21	74.07–74.89
30	143	16	73.60	3.34	.28	73.05–74.15
30	143	15⅞	74.28	3.20	.27	73.75–74.80
30	143	15¾	75.09	3.03	.25	74.59–75.58
30	143	15½	75.61	2.93	.24	75.13–76.09
60	143	16	73.68	3.49	.29	73.10–74.25
60	143	15⅞	74.22	3.31	.28	73.67–74.26
60	143	15¾	75.13	3.10	.26	74.62–75.63
60	143	15½	75.68	2.99	.25	75.19–76.17
90	143	16	74.18	3.35	.28	73.63–74.73
90	143	15⅞	74.75	3.16	.26	74.23–75.27
90	143	15¾	75.70	2.88	.24	75.23–76.17
90	143	15½	76.32	2.68	.22	75.88–76.75

TABLE 10.—*SMK and SS outturn of Virginia peanut samples, using different screen sizes*

Days in storage	Number in samples (n)	Screen size	Mean % SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	226	15	69.48	3.16	0.21	69.07–69.89
5	225	15	68.12	3.24	.22	67.69–68.54
5	77	14¾	69.44	2.47	.28	68.88–70.00
5	77	14½	69.62	2.41	.27	69.08–70.17
30	227	15	66.76	3.37	.22	66.32–67.20
30	227	14¾	67.29	3.20	.21	66.88–67.71
30	227	14½	67.55	3.13	.21	67.14–67.96
60	227	15	67.33	3.68	.24	66.85–67.81
60	227	14¾	68.27	3.31	.22	67.84–68.70
60	227	14½	68.50	3.22	.21	68.08–68.92
90	226	15	68.44	3.36	.22	68.00–68.88
90	226	14¾	68.98	3.24	.22	68.56–69.40
90	226	14½	69.19	3.17	.21	68.77–69.60

TABLE 11.—*Moisture content (% wb) of Alabama peanut samples*

Days in storage	Sample size (n)	Mean % moisture	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	26	8.07	1.13	0.22	7.61–8.52
5	26	7.27	1.14	.22	6.81–7.73
30	25	6.50	.31	.06	6.37–6.63
60	26	6.46	.44	.09	6.28–6.64
90	25	6.30	.29	.06	6.18–6.42
			RUNNER		
0	87	8.62	1.13	0.12	8.38–8.86
5	87	6.21	.59	.06	6.08–6.33
30	88	6.30	.47	.05	6.20–6.40
60	88	5.65	.32	.03	5.59–5.72
90	84	5.51	.21	.02	5.47–5.56
			'FLORUNNER'		
0	10	9.14	1.17	0.37	8.30–9.98
5	10	5.53	.15	.05	5.42–5.64
30	10	6.55	.11	.03	6.47–6.63
60	10	5.77	.41	.13	5.48–6.06
90	10	5.39	.14	.04	5.29–5.49
			VIRGINIA		
0	87	9.10	1.05	0.11	8.87–9.32
5	86	6.74	.40	.04	6.65–6.82
30	87	6.34	.23	.02	6.29–6.39
60	87	6.31	.20	.02	6.27–6.35
90	86	6.19	.26	.03	6.13–6.25

TABLE 12.—*Total kernel (TK) content of Alabama peanut samples*

Days in storage	Sample size (n)	Mean % TK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	26	75.46	2.28	0.45	74.54–76.38
5	24	72.83	5.85	1.19	70.36–75.30
30	25	73.56	4.69	.94	71.62–75.49
60	26	73.88	2.16	.42	73.00–74.75
90	26	74.90	3.83	.75	73.35–76.45
			RUNNER		
0	88	75.02	3.02	0.32	74.38–75.66
5	88	71.78	2.89	.31	71.17–72.39
30	87	73.31	3.52	.38	72.56–74.07
60	88	73.17	3.62	.39	72.41–73.94
90	88	73.32	3.00	.32	72.69–73.96

TABLE 12.—*Total kernel (TK) content of Alabama peanut samples*—Continued

Days in storage	Sample size (n)	Mean % TK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		'FLORUNNER'			
0	10	78.40	1.90	0.60	77.04–79.76
5	10	74.86	2.30	.73	73.21–76.51
30	10	76.82	1.97	.62	75.41–78.23
60	10	76.86	2.19	.69	75.29–78.43
90	10	77.56	2.21	.70	75.98–79.14
		VIRGINIA			
0	87	71.89	2.32	0.25	71.39–72.38
5	86	69.19	2.55	.27	68.65–69.74
30	87	67.92	2.60	.28	67.37–68.48
60	87	69.06	2.74	.29	68.47–69.64
90	87	69.33	2.88	.31	68.72–69.95

TABLE 13.—*Sound mature kernel (SMK) content in fraction retained on 15/64- or 16/64-in. screen, of Alabama peanut samples*

Days in storage	Sample size (n)	Mean % SMK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		SPANISH (15/64 SCREEN)			
0	26	64.81	3.54	0.70	63.38–66.24
5	24	62.50	2.46	.50	61.46–63.55
30	25	63.15	3.28	.66	61.79–64.50
60	26	62.12	2.96	.58	60.91–63.30
90	26	62.75	3.29	.65	61.42–64.08
		RUNNER (16/64 SCREEN)			
0	88	62.70	5.27	0.56	61.59–63.82
5	88	58.49	4.91	.52	57.44–59.53
30	87	58.91	5.15	.55	57.82–60.01
60	88	58.42	4.96	.53	57.37–59.47
90	88	57.96	5.21	.56	56.86–59.07
		'FLORUNNER' (16/64 SCREEN)			
0	10	67.10	4.93	1.56	63.57–70.63
5	10	62.56	5.00	1.58	58.99–66.13
30	10	62.95	4.10	1.30	60.01–65.89
60	10	61.98	5.82	1.84	57.82–66.14
90	10	60.84	6.24	1.97	56.38–65.30
		VIRGINIA (15/64 SCREEN)			
0	87	65.95	3.31	0.35	65.24–66.65
5	87	63.62	2.91	.31	63.00–64.24
30	87	60.14	3.46	.37	59.40–60.88
60	87	59.12	3.93	.42	58.28–59.96
90	87	61.52	4.34	.47	60.59–62.44

TABLE 14.—*Sound split (SS) content of Alabama peanuts*

Days in storage	Sample size (n)	Mean % SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	26	4.38	2.32	0.45	3.45– 5.32
5	24	5.27	2.20	.45	4.34– 6.20
30	25	4.93	1.93	.39	4.13– 5.73
60	26	5.90	2.72	.53	4.80– 6.99
90	26	6.15	2.52	.49	5.13– 7.16
			RUNNER		
0	88	3.92	2.06	0.22	3.48– 4.36
5	88	5.15	2.51	.27	4.62– 5.69
30	87	6.00	2.62	.28	5.44– 6.56
60	88	6.63	2.99	.32	6.00– 7.27
90	88	7.44	3.94	.42	6.60– 8.28
			'FLORUNNER'		
0	10	3.70	1.49	0.47	2.63– 4.77
5	10	6.81	2.74	.87	4.85– 8.77
30	10	7.44	2.81	.89	5.43– 9.45
60	10	8.45	2.92	.92	6.36–10.54
90	10	10.26	5.22	1.65	6.53–13.99
			VIRGINIA		
0	87	2.45	1.60	0.17	2.11– 2.79
5	87	3.23	1.66	.18	2.87– 3.58
30	87	4.99	2.12	.23	4.54– 5.44
60	87	6.62	2.82	.30	6.02– 7.22
90	87	5.44	3.06	.33	4.79– 6.09

TABLE 15.—*SMK plus SS content of Alabama peanut samples*

Days in storage	Sample size (n)	Mean % SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	26	69.19	3.58	0.70	67.75–70.64
5	24	67.77	3.09	.63	66.47–69.07
30	25	68.08	3:61	.72	66.59–69.57
60	26	68.00	3.97	.78	66.40–69.61
90	26	68.90	4.75	.93	66.98–70.82
			RUNNER		
0	88	66.63	4.87	0.52	65.59–67.66
5	88	63.64	4.31	.46	62.72–64.55
30	87	64.92	4.87	.52	63.88–65.96
60	88	65.06	4.30	.46	64.14–65.97
90	88	65.40	4.31	.46	64.49–66.32

TABLE 15.—*SMK plus SS content of Alabama peanut samples*—Continued

Days in storage	Sample size (n)	Mean % SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		'FLORUNNER'			
0	10	70.80	4.64	1.47	67.48–74.12
5	10	69.37	4.10	1.30	66.44–72.30
30	10	70.39	3.98	1.26	67.54–73.24
60	10	70.43	4.48	1.53	66.96–73.90
90	10	71.10	4.24	1.34	68.07–74.13
		VIRGINIA			
0	87	68.39	3.17	0.34	67.71–69.07
5	87	66.85	3.11	.33	66.18–67.51
30	87	65.13	3.35	.36	64.41–65.85
60	87	65.74	3.99	.43	64.89–66.60
90	87	66.96	3.66	.39	66.17–67.74

TABLE 16.—*Other kernel (OK) content of fraction falling through a 15/64- or 16/64-in. screen in Alabama peanut samples*

Days in storage	Sample size (n)	Mean % OK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		SPANISH (15/64 SCREEN)			
0	26	5.77	2.14	0.42	4.90–6.63
5	24	5.21	1.78	.36	4.46–5.96
30	25	5.99	2.16	.43	5.10–6.88
60	26	5.47	1.97	.39	4.67–6.26
90	26	5.94	2.24	.44	5.04–6.85
		RUNNER (16/64 SCREEN)			
0	88	8.41	4.01	0.43	7.56–9.26
5	88	8.04	2.84	.30	7.44–8.64
30	87	8.21	3.06	.33	7.55–8.86
60	88	7.96	2.88	.31	7.35–8.57
90	88	8.08	2.91	.31	7.46–8.69
		'FLORUNNER' (16/64 SCREEN)			
0	10	6.30	2.54	0.80	4.48–8.12
5	10	5.38	1.83	.58	4.07–6.69
30	10	6.41	2.13	.67	4.89–7.93
60	10	6.51	2.85	.90	4.47–8.55
90	10	6.35	2.31	.73	4.70–8.00
		VIRGINIA (15/64 SCREEN)			
0	87	2.69	0.94	0.10	2.49–2.89
5	87	2.33	.95	.10	2.13–2.53
30	87	2.77	.94	.10	2.57–2.97
60	87	3.23	1.60	.17	2.89–3.57
90	87	2.38	1.06	.11	2.16–2.61

TABLE 17.—*Hull content of Alabama peanut samples*

Days in storage	Sample size (n)	Mean % hulls	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	26	24.12	2.10	0.43	23.27–24.97
5	24	26.54	1.89	.39	25.74–27.34
30	24	24.48	2.43	.50	23.46–25.51
60	25	25.82	2.24	.45	24.89–26.74
90	25	25.36	2.58	.52	24.30–26.42
			RUNNER		
0	88	24.80	2.91	0.31	24.18–25.41
5	88	27.98	2.86	.30	27.37–28.58
30	86	26.17	3.53	.38	25.41–26.93
60	87	26.88	2.83	.30	26.27–27.48
90	88	26.51	3.12	.33	25.85–27.17
			'FLORUNNER'		
0	10	21.50	2.01	0.64	20.06–22.94
5	10	25.04	2.31	.73	23.39–26.69
30	10	24.05	3.58	1.13	21.49–26.61
60	10	23.00	2.18	.69	21.44–24.56
90	10	22.45	1.87	.59	21.11–23.79
			VIRGINIA		
0	87	27.94	2.16	0.23	27.48–28.40
5	87	30.35	2.35	.25	29.85–30.85
30	87	31.62	2.62	.28	31.06–32.18
60	87	30.56	2.67	.29	29.99–31.13
90	87	30.37	2.79	.30	29.77–30.96

TABLE 18.—*Weight loss in storage of Alabama peanut samples*

Days in storage	Sample size (n)	Mean % wt. loss	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	0	-----	-----	-----	----- -----
5	24	0.87	1.51	0.31	0.25–1.52
30	25	1.70	1.29	.26	1.17–2.23
60	25	1.71	1.19	.24	1.22–2.20
90	25	1.79	1.36	.27	1.23–2.35
			RUNNER		
0	0	-----	-----	-----	----- -----
5	86	2.55	1.44	0.15	2.25–2.86
30	87	2.43	1.39	.15	2.14–2.73
60	87	3.15	1.25	.13	2.88–3.42
90	80	3.24	1.24	.14	2.96–3.52

TABLE 18.—*Weight loss in storage of Alabama peanut samples*—Continued

Days in storage	Sample size (n)	Mean % wt. loss	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			'FLORUNNER'		
0	0	-----	-----	-----	----- -----
5	10	3.82	1.20	0.38	2.97–4.68
30	10	2.77	1.26	.40	1.86–3.67
60	10	3.60	1.54	.49	2.50–4.76
90	10	3.97	1.27	.40	3.06–4.88
			VIRGINIA		
0	0	-----	-----	-----	----- -----
5	86	2.52	1.32	0.14	2.24–2.81
30	87	2.94	1.10	.12	2.71–3.18
60	87	2.98	1.12	.12	2.74–3.22
90	86	3.09	1.15	.12	2.85–3.34

TABLE 19.—*SMK and SS outturn of Spanish peanut samples from Alabama, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	26	15	69.19	3.58	0.70	67.75–70.64
5	24	15	67.77	3.09	.63	66.47–69.07
5	7	14 7/8	68.77	2.94	1.11	66.06–71.49
5	7	14 3/4	69.60	2.44	.92	67.34–71.86
5	24	14 1/2	70.13	2.73	.56	68.98–71.29
30	24	15	68.10	3.69	.75	66.54–69.65
30	24	14 7/8	69.54	3.35	.68	68.13–70.96
30	24	14 3/4	70.24	3.10	.63	68.93–71.55
30	24	14 1/2	70.86	2.97	.61	69.61–72.11
60	26	15	68.00	3.97	.78	66.40–69.61
60	26	14 7/8	69.52	3.69	.72	68.02–71.01
60	26	14 3/4	70.40	3.48	.68	68.99–71.81
60	26	14 1/2	70.88	3.43	.67	69.50–72.27
90	26	15	68.90	4.75	.93	66.98–70.82
90	26	14 7/8	70.35	4.51	.88	68.53–72.17
90	26	14 3/4	71.15	4.25	.83	69.43–72.86
90	26	14 1/2	71.73	4.17	.82	70.05–73.42

TABLE 20.—*SMK and SS outturn of Runner peanut samples from Alabama, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	88	16	66.63	4.87	0.52	65.59–67.66
5	88	16	63.64	4.31	.46	62.72–64.55
5	41	15 7/8	65.19	4.42	.69	63.80–66.59
5	41	15 3/4	66.73	4.15	.65	65.42–68.04
5	88	15 1/2	67.16	3.78	.40	66.36–67.96
30	87	16	64.92	4.87	.52	63.88–65.96
30	87	15 7/8	66.06	4.75	.51	65.05–67.07
30	87	15 3/4	67.49	4.60	.49	66.51–68.47
30	87	15 1/2	68.28	4.59	.49	67.30–69.26
60	88	16	65.06	4.30	.46	64.14–65.97
60	88	15 7/8	66.15	4.11	.44	65.27–67.02
60	88	15 3/4	67.90	3.87	.41	67.08–68.72
60	88	15 1/2	68.88	3.69	.39	68.16–69.67
90	88	16	65.40	4.31	.46	64.49–66.32
90	88	15 7/8	66.19	4.36	.47	65.26–67.11
90	88	15 3/4	67.88	4.09	.44	67.01–68.75
90	88	15 1/2	68.93	3.95	.42	68.09–69.77

TABLE 21.—*SMK and SS outturn of 'Florunner' peanut samples from Alabama, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	10	16	70.80	4.64	1.47	67.48–74.12
5	10	16	69.37	4.10	1.30	66.44–72.30
5	10	15 7/8	70.33	3.79	1.20	67.62–73.04
5	10	15 3/4	71.37	3.51	1.11	68.86–73.88
5	10	15 1/2	71.98	3.31	1.05	69.61–74.35
30	10	16	70.39	3.98	1.26	67.54–73.24
30	10	15 7/8	71.22	3.86	1.22	68.46–73.98
30	10	15 3/4	72.11	3.66	1.16	69.50–74.72
30	10	15 1/2	72.96	3.61	1.14	70.38–75.54
60	10	16	70.43	4.84	1.53	66.96–73.90
60	10	15 7/8	71.04	4.72	1.49	67.66–74.42
60	10	15 3/4	72.25	4.29	1.36	69.18–75.32
60	10	15 1/2	73.07	4.19	1.33	70.07–76.07
90	10	16	71.10	4.24	1.34	68.07–74.13
90	10	15 7/8	71.69	4.14	1.31	68.73–74.65
90	10	15 3/4	72.75	4.06	1.28	69.84–75.66
90	10	15 1/2	73.81	3.62	1.15	71.22–76.40

TABLE 22.—*SMK and SS outturn of Virginia peanut samples from Alabama, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	87	15	68.39	3.17	0.34	67.71–69.07
5	87	15	66.85	3.11	.33	66.18–67.51
5	26	14¾	68.73	2.39	.47	67.77–69.69
5	26	14½	68.91	2.30	.45	67.98–69.84
30	87	15	65.13	3.35	.36	64.41–65.85
30	87	14¾	65.73	3.12	.33	65.67–66.40
30	87	14½	66.02	3.05	.33	65.37–66.67
60	87	15	65.74	3.99	.43	64.89–66.60
60	87	14¾	66.84	3.57	.38	66.08–67.61
60	87	14½	67.11	3.49	.37	66.37–67.86
90	87	15	66.96	3.66	.39	66.17–67.74
90	87	14¾	67.55	3.54	.38	66.79–68.30
90	87	14½	67.77	3.46	.37	67.03–68.51

TABLE 23.—*Moisture content (% wb) of Florida peanut samples*

Days in storage	Sample size (n)	Mean % moisture	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	28	8.54	1.35	0.25	8.01–9.06
5	28	6.45	.59	.11	6.22–6.68
30	28	6.37	.20	.04	6.30–6.44
60	28	6.36	.29	.05	6.25–6.47
90	27	6.13	.23	.04	6.04–6.22
			RUNNER		
0	40	8.35	1.41	0.22	7.90–8.80
5	40	5.83	.29	.05	5.73–5.92
30	40	5.99	.38	.06	5.86–6.11
60	40	5.75	.43	.07	5.61–5.89
90	40	5.49	.15	.02	5.44–5.54
			'FLORUNNER'		
0	24	8.19	1.31	0.27	7.63–8.74
5	24	5.70	.35	.07	5.56–5.85
30	24	5.87	.35	.07	5.72–6.01
60	24	5.60	.29	.06	5.47–5.72
90	23	5.53	.19	.04	5.45–5.62
			VIRGINIA		
0	40	8.65	1.33	0.21	8.22–9.07
5	39	6.92	.27	.04	6.83–7.01
30	40	6.29	.20	.03	6.23–6.36
60	40	6.31	.21	.03	6.24–6.37
90	40	6.28	.23	.04	6.28–6.35

TABLE 24.—*Total kernel (TK) content of Florida peanut samples*

Days in storage	Sample size (n)	Mean % TK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		SPANISH			
0	28	76.43	1.69	0.32	75.77–77.08
5	28	72.72	1.57	.30	72.11–73.33
30	28	74.10	2.35	.44	73.18–75.01
60	28	74.89	2.06	.39	74.09–75.69
90	28	74.98	1.84	.35	74.26–75.68
		RUNNER			
0	40	77.38	2.51	0.40	76.57–78.18
5	40	73.60	2.47	.39	72.82–74.39
30	40	74.79	2.73	.43	73.92–75.67
60	39	74.99	3.22	.52	73.94–76.03
90	40	76.00	2.33	.37	75.26–76.75
		'FLORUNNER'			
0	24	78.88	1.73	0.35	78.15–79.60
5	24	76.20	2.37	.48	75.20–77.20
30	24	77.32	2.16	.44	76.41–78.24
60	24	77.48	1.85	.38	76.70–78.26
90	24	78.19	2.04	.42	77.33–79.06
		VIRGINIA			
0	39	73.18	2.44	0.39	72.39–73.97
5	39	70.86	2.40	.38	70.09–71.64
30	40	69.45	2.51	.40	68.65–70.25
60	40	70.42	2.37	.37	69.67–71.18
90	40	70.91	2.59	.41	70.09–71.74

TABLE 25.—*SMK content of fraction retained on15/64- or 16664-in. screen, in peanut samples from Florida*

Days in storage	Sample size (n)	Mean % SMK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		SPANISH (15/64 SCREEN)			
0	28	65.89	3.96	0.75	64.36–67.43
5	28	62.13	3.70	.70	60.70–63.57
30	28	63.54	3.63	.69	62.13–64.95
60	28	62.26	3.57	.68	60.88–63.65
90	28	58.21	5.62	1.06	56.03–60.39
		RUNNER (16/64 SCREEN)			
0	40	66.07	5.12	0.81	64.44–67.71
5	40	61.02	5.31	.84	59.32–62.72
30	40	60.82	5.57	.88	59.04–62.61
60	39	60.03	5.65	.90	58.20–61.86
90	40	59.01	8.27	1.31	56.37–61.66

TABLE 25.—*SMK content of fraction retained on 15/64- or 16/64-in. screen, in peanut samples from Florida*—Continued

Days in storage	Sample size (n)	Mean % SMK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		'FLORUNNER' (16/64 SCREEN)			
0	24	69.83	4.26	0.87	68.03–71.63
5	24	66.77	3.94	.80	65.10–68.43
30	24	67.56	3.73	.76	65.98–69.13
60	24	66.16	3.58	.73	64.65–67.67
90	24	63.15	4.43	.90	61.28–65.02
		VIRGINIA (15/64 SCREEN)			
0	39	65.92	4.82	0.77	64.36–67.49
5	39	64.98	4.80	.77	63.43–66.54
30	40	61.86	4.48	.71	60.43–63.30
60	40	61.01	5.14	.81	59.37–62.66
90	40	62.85	4.85	.77	61.30–64.41

TABLE 26.—*SS content of Florida peanut samples*

Days in storage	Sample size (n)	Mean % SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		SPANISH			
0	27	3.81	2.51	0.48	2.82– 4.81
5	28	5.80	3.57	.68	4.41– 7.18
30	28	6.08	3.07	.58	4.89– 7.27
60	28	7.59	3.36	.63	6.28– 8.89
90	28	11.27	5.77	1.09	9.03–13.51
		RUNNER			
0	40	3.78	2.40	0.38	3.01– 4.54
5	40	6.03	3.02	.48	5.06– 6.99
30	40	6.72	3.00	.47	5.76– 7.68
60	39	7.95	3.69	.59	6.75– 9.15
90	40	10.04	6.67	1.05	7.91–12.17
		'FLORUNNER'			
0	24	3.75	2.11	0.43	2.86– 4.64
5	24	5.27	2.30	.47	4.30– 6.24
30	24	5.42	2.45	.50	4.38– 6.45
60	24	6.83	2.43	.50	5.80– 7.85
90	24	10.02	4.13	.84	8.27–11.76
		VIRGINIA			
0	38	4.05	4.06	0.66	2.72– 5.39
5	39	3.65	3.50	.56	2.52– 4.79
30	40	5.13	3.83	.61	3.91– 6.36
60	40	6.61	4.32	.68	5.23– 8.00
90	40	6.03	4.23	.67	4.67– 7.38

TABLE 27.—*SMK plus SS content of Florida peanut samples*

Days in storage	Sample size (n)	Mean % SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	28	69.57	3.66	0.69	68.15–70.99
5	28	67.93	2.77	.52	66.85–69.00
30	28	69.62	2.78	.53	68.54–70.70
60	28	69.85	2.69	.51	68.81–70.89
90	28	69.47	4.01	.76	67.92–71.03
			RUNNER		
0	40	69.85	4.75	0.75	68.33–71.37
5	40	67.04	4.17	.66	65.71–68.38
30	40	67.54	4.91	.78	65.97–69.11
60	39	67.98	4.93	.79	66.38–69.58
90	40	69.05	4.31	.68	67.67–70.43
			'FLORUNNER'		
0	24	73.58	3.81	0.78	71.97–75.19
5	24	72.03	3.75	.77	70.45–73.62
30	24	72.97	3.44	.70	71.52–74.43
60	24	72.99	3.33	.68	71.58–74.40
90	24	73.16	3.33	.68	71.75–74.57
			VIRGINIA		
0	39	69.87	2.58	0.41	69.04–70.71
5	39	68.64	2.93	.47	67.69–69.59
30	40	67.00	2.70	.43	66.13–67.86
60	40	67.62	2.90	.46	66.70–68.55
90	40	68.88	2.90	.46	67.95–69.80

TABLE 28.—*OK content of fraction falling through 15/64- or 16/64-in. screen, in Florida peanut samples*

Days in storage	Sample size (n)	Mean % OK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH (15/64 SCREEN)		
0	28	5.96	2.03	0.38	5.18–6.75
5	28	4.58	1.43	.27	4.02–5.13
30	28	4.41	1.37	.26	3.88–4.94
60	28	5.01	1.42	.27	4.46–5.56
90	28	5.05	1.77	.33	4.36–5.74
			RUNNER (16/64 SCREEN)		
0	40	6.97	3.02	0.48	5.99–7.95
5	40	6.63	2.37	.37	5.87–7.39
30	40	7.18	2.61	.41	6.35–8.01
60	40	6.89	2.91	.47	5.95–7.83
90	40	6.96	3.04	.48	5.99–7.93

TABLE 28.—*OK content of fraction falling through 15/64- or 16/64-in. screen, in Florida peanut samples*—Continued

Days in storage	Sample size (n)	Mean % OK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		'FLORUNNER' (16/64 SCREEN)			
0	24	4.58	1.61	0.33	3.90–5.26
5	24	4.22	1.69	.34	3.50–4.93
30	24	4.24	1.74	.36	3.50–4.97
60	24	4.54	1.77	.36	3.79–5.29
90	24	4.84	1.68	.34	4.13–5.55
		VIRGINIA (15/64 SCREEN)			
0	39	2.78	0.97	0.16	2.40–3.03
5	39	2.16	.82	.13	1.89–2.43
30	40	2.45	.76	.12	2.54–3.11
60	40	2.83	.89	.14	2.20–2.69
90	40	2.08	.78	.12	1.83–2.33

TABLE 29.—*Hull content of Florida peanut samples*

Days in storage	Sample size (n)	Mean % hulls	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		SPANISH			
0	28	23.29	1.56	0.29	22.68–23.89
5	28	26.95	1.60	.30	26.33–27.57
30	28	25.79	2.42	.46	24.85–26.72
60	28	24.92	1.98	.37	24.16–25.69
90	27	24.77	1.88	.36	24.02–25.51
		RUNNER			
0	40	22.50	2.39	0.38	21.74–23.26
5	40	26.17	2.49	.39	25.37–26.97
30	40	25.04	2.70	.43	24.18–25.91
60	39	24.42	2.66	.43	23.56–25.28
90	40	23.78	2.33	.37	23.04–24.53
		'FLORUNNER'			
0	24	20.92	1.74	0.36	20.18–21.66
5	24	23.63	2.34	.48	22.64–24.62
30	24	22.60	2.07	.42	21.72–23.47
60	24	22.20	1.87	.38	21.41–22.99
90	24	21.90	2.01	.41	21.05–22.75
		VIRGINIA			
0	39	26.49	1.76	0.28	25.92–27.06
5	38	28.81	2.45	.40	28.00–29.61
30	40	30.44	2.59	.41	29.61–31.27
60	40	29.20	2.31	.37	28.46–29.94
90	40	28.91	2.80	.44	28.02–29.81

TABLE 30.—*Weight loss in storage of Florida peanuts*

Days in storage	Sample size (n)	Mean % weight loss	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	0	-----	-----	-----	----- -----
5	28	2.18	1.54	0.29	1.59–2.28
30	28	2.30	1.44	.27	1.74–2.86
60	28	2.28	1.47	.28	1.71–2.85
90	27	2.49	1.49	.29	1.91–3.08
			RUNNER		
0	0	-----	-----	-----	----- -----
5	40	2.71	1.43	0.23	2.26–3.17
30	40	2.52	1.43	.23	2.96–2.98
60	39	2.78	1.41	.23	2.33–3.24
90	40	3.04	1.46	.23	2.57–3.51
			'FLORUNNER'		
0	0	-----	-----	-----	----- -----
5	24	2.65	1.48	0.30	2.02–3.27
30	24	2.46	1.46	.30	1.84–3.07
60	24	2.70	1.50	.31	2.08–3.34
90	23	2.71	1.45	.30	2.08–3.34
			VIRGINIA		
0	0	-----	-----	-----	----- -----
5	39	1.84	1.57	0.25	1.33–2.35
30	40	2.45	1.57	.25	1.95–2.95
60	40	2.43	1.56	.25	1.94–2.93
90	40	2.38	1.71	.27	1.84–2.93

TABLE 31.—*SMK and SS outturn of Florida Spanish peanut samples, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	28	15	69.57	3.66	0.69	68.15–70.99
5	28	15	67.93	2.77	.52	66.85–69.00
5	21	14 7/8	69.59	1.67	.36	68.83–70.35
5	21	14 3/4	70.25	1.62	.35	69.51–70.98
5	28	14 1/2	70.12	2.63	.50	69.10–74.14
30	28	15	69.62	2.78	.53	68.54–70.70
30	28	14 7/8	70.67	2.62	.50	69.65–71.69
30	28	14 3/4	71.21	2.56	.48	70.21–72.20
30	28	14 1/2	71.70	2.57	.48	70.71–72.70
60	28	15	69.85	2.69	.51	68.81–70.89
60	28	14 7/8	70.96	2.46	.47	70.00–71.91
60	28	14 3/4	71.65	2.39	.45	70.73–72.58
60	28	14 1/2	72.14	2.40	.45	71.21–73.07
90	28	15	69.47	4.01	.76	67.92–71.03
90	28	14 7/8	70.76	3.83	.72	69.28–72.25
90	28	14 3/4	71.37	3.79	.72	69.90–72.84
90	28	14 1/2	71.86	3.80	.72	70.39–73.34

TABLE 32.—*SMK and SS outturn of Florida Runner peanut samples, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	40	16	69.85	4.75	0.75	68.33–71.37
5	40	16	67.04	4.17	.66	65.71–68.38
5	26	15 7/8	67.63	4.11	.81	65.97–69.29
5	26	15 3/4	69.03	3.83	.75	67.48–70.58
5	40	15 1/2	70.41	3.52	.56	69.29–71.53
30	40	16	67.54	4.91	.78	65.97–69.11
30	40	15 7/8	68.64	4.66	.74	67.15–70.13
30	40	15 3/4	70.18	4.27	.68	68.82–71.55
30	40	15 1/2	70.97	4.07	.64	69.67–72.27
60	39	16	67.98	4.93	.79	66.38–69.58
60	39	15 7/8	68.81	4.92	.79	67.21–70.40
60	39	15 3/4	70.28	4.52	.72	68.82–71.75
60	39	15 1/2	71.11	4.39	.70	69.69–72.53
90	40	16	69.05	4.31	.68	67.67–70.43
90	40	15 7/8	69.98	4.15	.66	68.66–71.31
90	40	15 3/4	71.41	3.85	.61	70.18–72.64
90	40	15 1/2	72.37	3.54	.56	71.24–73.51

TABLE 33.—*SMK and SS outturn of Florida 'Florunner' peanut samples, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	24	16	73.58	3.81	0.78	71.97–75.19
5	24	16	72.03	3.75	.77	70.45–73.62
5	20	15 7/8	73.70	2.71	.61	72.44–74.97
5	20	15 3/4	74.48	2.51	.56	73.31–75.65
5	24	15 1/2	74.28	3.21	.66	72.92–75.64
30	24	16	72.97	3.44	.70	71.52–74.43
30	24	15 7/8	73.66	3.24	.66	72.29–75.03
30	24	15 3/4	74.54	3.06	.62	73.25–75.83
30	24	15 1/2	75.08	2.97	.61	73.83–76.34
60	24	16	72.99	3.33	.68	71.58–74.46
60	24	15 7/8	73.58	3.11	.63	72.27–74.89
60	24	15 3/4	74.66	2.84	.58	73.46–75.86
60	24	15 1/2	75.26	2.73	.56	74.11–76.42
90	24	16	73.16	3.33	.68	71.75–74.57
90	24	15 7/8	73.83	3.12	.64	72.51–75.15
90	24	15 3/4	74.88	2.79	.57	73.70–76.06
90	24	15 1/2	75.57	2.70	.55	74.43–76.71

TABLE 34.—*SMK and SS outturn of Florida Virginia peanut samples, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	39	15	69.87	2.58	0.41	69.04–70.71
5	39	15	68.64	2.93	.47	67.69–69.59
5	0	-------	-------	------	--	------- ------
5	0	-------	-------	------	---	------- -------
30	40	15	67.00	2.70	.43	66.13–67.86
30	40	14 ¾	67.49	2.63	.42	66.66–68.34
30	40	14 ½	67.75	2.61	.41	66.91–68.59
60	40	15	67.62	2.90	.46	66.70–68.55
60	40	14 ¾	68.34	2.76	.44	67.46–69.23
60	40	14 ½	68.57	2.75	.43	67.69–69.45
90	40	15	68.88	2.90	.46	67.95–69.80
90	40	14 ¾	69.42	2.82	.44	68.52–70.32

TABLE 35.—*Moisture content (% wb) of Georgia peanut samples*

Days in storage	Sample size (n)	Mean % moisture	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	109	8.69	1.10	0.11	8.48–8.90
5	109	6.84	.45	.04	6.76–6.93
30	109	6.25	.30	.03	6.19–6.31
60	109	6.41	.32	.03	6.35–6.47
90	109	6.16	.30	.03	6.10–6.21
			RUNNER		
0	131	8.20	1.20	0.10	7.99–8.40
5	130	5.98	.43	.04	5.91–6.06
30	131	6.11	.45	.04	6.03–6.18
60	131	6.04	.49	.04	5.96–6.12
90	127	5.52	.29	.03	5.47–5.57
			'FLORUNNER'		
0	109	9.07	1.33	0.13	8.81–9.32
5	109	5.82	.44	.04	5.73–5.90
30	108	6.02	.40	.04	5.94–6.09
60	109	6.01	.46	.04	5.92–6.10
90	108	5.51	.23	.02	5.46–5.55
			VIRGINIA		
0	99	8.84	1.28	0.13	8.58–9.09
5	99	6.70	.37	.04	6.62–6.77
30	100	6.30	.27	.03	6.24–6.35
60	100	6.22	.23	.02	6.17–6.26
90	98	6.25	.22	.02	6.21–6.30

TABLE 36.—*TK content of Georgia peanut samples*

Days in storage	Sample size (n)	Mean % TK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	109	77.12	1.63	0.16	76.81–77.43
5	109	73.68	1.64	.16	73.36–73.99
30	108	74.33	2.38	.23	73.88–74.78
60	109	74.98	1.63	.16	74.67–74.28
90	109	75.48	1.56	.15	75.19–75.78
			RUNNER		
0	131	76.73	2.43	0.21	76.31–77.14
5	130	72.84	2.60	.23	72.39–73.28
30	131	74.24	2.65	.23	73.78–74.69
60	131	74.90	2.45	.21	74.48–75.32
90	131	75.32	2.55	.22	74.88–75.76
			'FLORUNNER'		
0	109	79.65	2.02	0.19	79.27–80.04
5	109	77.10	1.61	.15	76.80–77.41
30	109	78.16	1.69	.16	77.84–78.49
60	109	78.45	2.35	.23	78.00–78.89
90	109	79.05	1.71	.16	78.72–79.38
			VIRGINIA		
0	100	73.57	2.19	0.22	73.13–74.01
5	99	71.06	2.19	.22	70.62–71.50
30	100	70.17	2.43	.24	69.68–70.65
60	100	71.11	2.18	.22	70.67–71.54
90	99	71.51	2.00	.20	71.11–71.91

TABLE 37.—*SMK content of Georgia peanut samples*

Days in storage	Sample size (n)	Mean % SMK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	109	66.80	3.39	0.33	66.15–67.44
5	108	62.83	2.73	.26	62.31–63.36
30	108	62.95	3.13	.30	62.35–63.55
60	109	61.68	3.23	.31	61.07–62.30
90	109	59.28	5.00	.48	58.32–60.23
			RUNNER		
0	131	64.53	4.44	0.39	63.77–65.29
5	130	59.59	4.94	.43	58.74–60.44
30	131	59.76	4.47	.39	59.00–60.53
60	131	58.46	4.56	.40	57.68–59.24
90	131	58.10	6.40	.56	57.00–59.19

TABLE 37.—*SMK content of Georgia peanut samples*—Continued

Days in storage	Sample size (n)	Mean % SMK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			'FLORUNNER'		
0	109	70.23	3.62	0.35	69.54–70.92
5	109	67.11	2.97	.28	66.54–67.67
30	109	66.92	3.51	.34	66.25–67.58
60	109	65.78	5.03	.48	64.82–66.74
90	109	65.31	5.29	.51	64.30–66.31
			VIRGINIA		
0	100	66.23	3.69	0.37	65.50–66.96
5	99	64.71	3.86	.39	63.94–65.48
30	100	62.13	4.32	.43	61.27–62.99
60	100	60.45	4.66	.47	59.52–61.38
90	99	62.04	4.93	.49	61.06–63.02

TABLE 38.—*SS content of Georgia peanut samples*

Days in storage	Sample size (n)	Mean % SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	109	4.18	2.33	0.22	3.74– 4.63
5	108	6.20	2.47	.24	5.73– 6.67
30	108	6.50	2.58	.25	6.00– 6.99
60	109	8.26	3.20	.31	7.65– 8.86
90	109	11.10	5.21	.50	10.11–12.09
			RUNNER		
0	131	5.05	2.69	0.23	4.59– 5.51
5	130	5.93	2.76	.24	5.45– 6.40
30	131	7.47	3.27	.29	6.91– 8.03
60	131	9.26	3.78	.33	8.62– 9.91
90	131	10.15	5.57	.49	9.20–11.11
			'FLORUNNER'		
0	109	4.92	2.67	0.26	4.42– 5.43
5	109	4.67	2.32	.22	4.23– 5.11
30	109	7.11	3.02	.29	6.54– 7.68
60	109	8.35	4.87	.47	7.42– 9.27
90	109	9.38	4.96	.47	8.43–10.32
			VIRGINIA		
0	99	4.09	2.73	0.27	3.55– 4.64
5	99	4.32	2.84	.29	3.75– 4.89
30	100	5.96	3.69	.37	5.23– 6.69
60	100	8.15	3.97	.40	7.36– 8.94
90	99	7.53	4.63	.47	6.60– 8.45

TABLE 39.—*SMK plus SS of Georgia peanut samples*

Days in storage	Sample size (n)	Mean % SMK & SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	109	70.98	2.73	0.26	70.46–71.50
5	108	69.03	2.35	.23	68.58–69.48
30	108	69.45	2.77	.27	68.92–69.98
60	109	69.94	2.61	.25	69.44–70.43
90	109	70.38	2.64	.25	69.88–70.88
			RUNNER		
0	131	69.57	4.22	0.37	68.85–70.30
5	130	65.52	4.23	.37	64.79–66.25
30	131	67.23	4.21	.37	66.51–67.95
60	131	67.72	4.34	.38	66.98–68.46
90	131	68.25	4.56	.40	67.47–69.03
			'FLORUNNER'		
0	109	75.15	3.12	0.30	74.56–75.75
5	109	71.77	2.73	.26	71.26–72.29
30	109	74.03	3.10	.30	73.44–74.62
60	109	74.13	3.23	.31	73.51–74.74
90	109	74.68	3.08	.30	74.10–75.27
			VIRGINIA		
0	100	70.28	3.11	0.31	69.66–70.90
5	99	69.03	3.13	.31	68.40–69.66
30	100	68.09	3.01	.30	67.49–68.69
60	100	68.59	3.16	.32	67.97–69.22
90	99	69.57	2.72	.27	69.02–70.11

TABLE 40.—*OK content of portion falling through a 15/64- or 16/64-in. screen, in Georgia peanut samples*

Days in storage	Sample size (n)	Mean % OK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH (15/64 SCREEN)		
0	109	5.27	1.74	0.17	4.94–5.60
5	108	4.64	1.50	.14	4.35–4.92
30	108	5.03	1.63	.16	4.72–5.34
60	109	4.94	1.57	.15	4.65–5.24
90	109	5.11	1.65	.16	4.80–5.43
			RUNNER (16/64 SCREEN)		
0	131	6.95	2.77	0.24	6.48–7.43
5	130	7.35	2.64	.23	6.90–7.81
30	131	7.02	2.70	.24	6.55–7.48
60	131	7.12	2.67	.23	6.66–7.57
90	131	7.04	2.81	.25	6.56–7.52

TABLE 40.—*OK content of portion falling through a 15/64- or 16/64-in. screen, in Georgia peanut samples*—Continued

Days in storage	Sample size (n)	Mean % OK	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		'FLORUNNER' (16/64 SCREEN)			
0	109	4.10	1.63	0.16	3.79–4.41
5	109	5.42	1.94	.19	5.05–5.79
30	109	4.30	1.66	.16	3.99–4.62
60	109	4.42	1.79	.17	4.08–4.76
90	109	4.33	1.85	.18	3.98–4.68
		VIRGINIA (15/64 SCREEN)			
0	100	2.40	1.20	0.12	2.16–2.64
5	99	1.95	.81	.08	1.79–2.12
30	100	2.10	.88	.09	1.92–2.27
60	100	2.38	1.39	.14	2.10–2.66
90	99	1.83	.89	.09	1.65–2.01

TABLE 41.—*Hull content of Georgia peanut samples*

Days in storage	Sample size (n)	Mean % hulls	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
		SPANISH			
0	109	22.92	1.62	0.16	22.61–23.23
5	109	25.98	1.60	.15	25.67–26.28
30	103	25.13	2.27	.22	24.69–25.58
60	109	24.67	1.65	.16	24.35–24.98
90	109	24.21	1.50	.14	23.93–24.50
		RUNNER			
0	131	23.20	2.38	0.21	22.79–23.61
5	130	26.93	2.56	.22	26.49–27.37
30	131	25.62	2.69	.23	25.16–26.08
60	131	24.86	2.43	.21	24.45–25.28
90	130	24.57	2.50	.22	24.14–25.00
		'FLORUNNER'			
0	109	19.98	1.88	0.18	19.62–20.34
5	109	22.66	1.63	.16	22.35–22.97
30	108	21.79	1.61	.15	21.48–22.10
60	109	21.21	1.67	.16	20.90–21.53
90	109	20.95	1.57	.15	20.66–21.25
		VIRGINIA			
0	100	26.33	2.10	0.21	25.91–26.75
5	98	28.55	2.22	.22	28.10–28.99
30	100	29.66	2.46	.25	29.17–30.15
60	99	28.67	2.20	.22	28.23–29.11
90	99	28.12	1.92	.19	27.74–28.51

TABLE 42.—*Weight loss of Georgia peanut samples*

Days in storage	Sample size (n)	Mean % weight loss	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
			SPANISH		
0	0	-----	-----	-----	----- -----
5	109	1.96	1.19	0.11	17.4–2.19
30	109	2.60	1.17	.11	2.38–2.82
60	109	2.44	1.17	.11	2.22–2.67
90	109	2.70	1.23	.12	2.46–2.93
			RUNNER		
0	0	-----	-----	-----	----- -----
5	130	2.32	1.29	0.11	2.10–2.54
30	131	2.22	1.42	.12	1.97–2.46
60	131	2.30	1.38	.12	2.06–2.54
90	127	2.86	1.32	.12	2.63–3.09
			'FLORUNNER'		
0	0	-----	-----	-----	----- -----
5	109	3.44	1.41	0.13	3.17–3.71
30	108	3.25	1.44	.14	2.97–3.52
60	109	3.28	1.43	.14	3.01–3.55
90	108	3.73	1.40	.14	3.46–3.10
			VIRGINIA		
0	0	-----	-----	-----	----- -----
5	98	2.32	1.36	0.14	2.05–2.59
30	99	2.69	1.40	.14	2.41–2.97
60	99	2.80	1.39	.14	2.52–3.08
90	97	2.76	1.35	.14	2.49–3.03

TABLE 43.—*SMK and SS outturn of Georgia Spanish peanuts, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	109	15	70.98	2.73	0.26	70.46–71.56
5	108	15	69.03	2.35	.23	68.58–69.48
5	5	14 7/8	71.54	1.64	.73	69.50–73.58
5	5	14 3/4	72.04	1.59	.71	70.06–74.02
5	108	14 1/2	70.62	2.18	.21	70.21–71.04
30	108	15	69.45	2.77	.27	68.92–69.98
30	108	14 7/8	70.64	2.66	.26	70.13–71.15
30	108	14 3/4	71.22	2.57	.25	70.73–71.71
30	108	14 1/2	71.70	2.48	.24	71.23–72.18
60	109	15	69.94	2.61	.25	69.44–70.43
60	109	14 7/8	71.10	2.47	.24	70.63–71.57
60	109	14 3/4	71.80	2.39	.23	71.34–72.25
60	109	14 1/2	72.31	2.25	.22	71.89–72.74
90	109	15	70.38	2.64	.25	69.88–70.88
90	109	14 7/8	71.72	2.47	.24	71.25–72.19
90	109	14 3/4	72.42	2.35	.23	71.97–72.87
90	109	14 1/2	72.94	2.23	.21	72.52–73.37

TABLE 44.—*SMK and SS outturn of Georgia Runner peanuts, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	131	16	69.57	4.22	0.37	68.85–70.30
5	130	16	65.52	4.23	.37	64.79–66.25
5	61	15 7/8	67.21	4.23	.54	66.13–68.29
5	61	15 3/4	68.77	3.81	.49	67.79–69.75
5	130	15 1/2	69.01	3.68	.32	68.38–69.65
30	131	16	67.23	4.21	.37	66.51–67.95
30	131	15 7/8	68.14	3.10	.35	67.45–68.82
30	131	15 3/4	69.44	3.64	.32	68.82–70.07
30	131	15 1/2	70.23	3.45	.30	69.64–70.83
60	131	16	67.72	4.34	.38	66.98–68.46
60	131	15 7/8	68.63	4.08	.36	67.93–69.33
60	131	15 3/4	69.99	3.78	.33	69.34–70.63
60	131	15 1/2	70.86	3.52	.31	70.26–71.46
90	131	16	68.25	4.56	.40	67.47–69.03
90	131	15 7/8	69.17	4.33	.38	68.43–69.92
90	131	15 3/4	70.62	3.99	.35	69.94–71.30
90	131	15 1/2	71.52	3.68	.32	70.89–72.15

TABLE 45.—*SMK and SS outturn of Georgia 'Florunner' peanuts, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	124	16	74.95	3.16	0.28	74.39–75.51
5	124	16	71.51	2.83	.25	71.01–72.01
5	57	15 7/8	73.67	2.41	.32	73.03–74.31
5	57	15 3/4	74.68	2.15	.28	74.11–75.25
5	124	15 1/2	74.57	2.18	.20	74.19–74.95
30	124	16	73.84	3.12	.28	73.29–74.39
30	124	15 7/8	74.54	2.99	.27	74.01–75.07
30	124	15 3/4	75.32	2.82	.25	74.82–75.81
30	124	15 1/2	75.82	2.72	.24	75.34–76.30
60	124	16	73.95	3.24	.29	73.37–74.52
60	124	15 7/8	74.50	3.05	.27	73.96–75.04
60	124	15 3/4	75.37	2.89	.26	74.86–75.88
60	124	15 1/2	75.89	2.79	.25	75.40–76.38
90	124	16	74.44	3.17	.28	73.88–74.10
90	124	15 7/8	75.01	2.97	.27	74.48–75.53
90	124	15 3/4	75.10	2.67	.24	75.53–76.47
90	124	15 1/2	76.55	2.49	.22	76.11–76.99

TABLE 46.—*SMK and SS outturn of Georgia Virginia peanuts, using different screen sizes*

Days in storage	Sample size (n)	Screen size	Percent SMK and SS	Standard deviation (s)	Standard error ($s/\sqrt{n}$)	Confidence interval
0	100	15	70.28	3.11	0.31	69.66–70.90
5	99	15	69.03	3.13	.31	68.40–69.66
5	51	14¾	69.80	2.46	.34	69.11–70.49
5	51	14½	69.99	2.40	.34	69.31–70.66
30	100	15	68.09	3.01	.30	67.49–68.69
30	100	14¾	68.57	2.90	.29	68.00–69.15
30	100	14½	68.80	2.82	.28	68.24–69.36
60	100	15	68.59	3.16	.32	67.97–69.22
60	100	14¾	69.47	2.76	.28	68.92–70.02
60	100	14½	69.68	2.66	.27	69.15–70.21
90	99	15	69.57	2.72	.27	69.02–70.11
90	99	14¾	70.06	2.62	.26	69.53–70.58
90	99	14½	70.25	2.56	.26	69.74–70.76

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